



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

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*** *** ***



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NATIONAL CAPITOL SYSTEMS, INC.

VEHICLE ACCIDENT INVESTIGATION

CASE NO. 90-10

, ARKANSAS

TECHNICAL REPORT

NATIONAL CAPITOL SYSTEMS, INC.

[REDACTED]
[REDACTED], Virginia [REDACTED]

VEHICLE ACCIDENT INVESTIGATION

CASE NO. 90-10

[REDACTED], ARKANSAS

Contract No. DTNH 22-87-C-17169

Prepared for:

U.S. Department of Transportation
National Highway Traffic Safety Administration
Washington, D.C. 20590

TECHNICAL REPORT STANDARD TITLE PAGE

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15. Supplementary Notes 1990 Dodge Daytona equipped with a driver airbag module system involved in a sideswipe impact with a 1974 Ford Torino and left side impacts with a wooden utility pole (deployment impact) and guy wire.			
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Summary

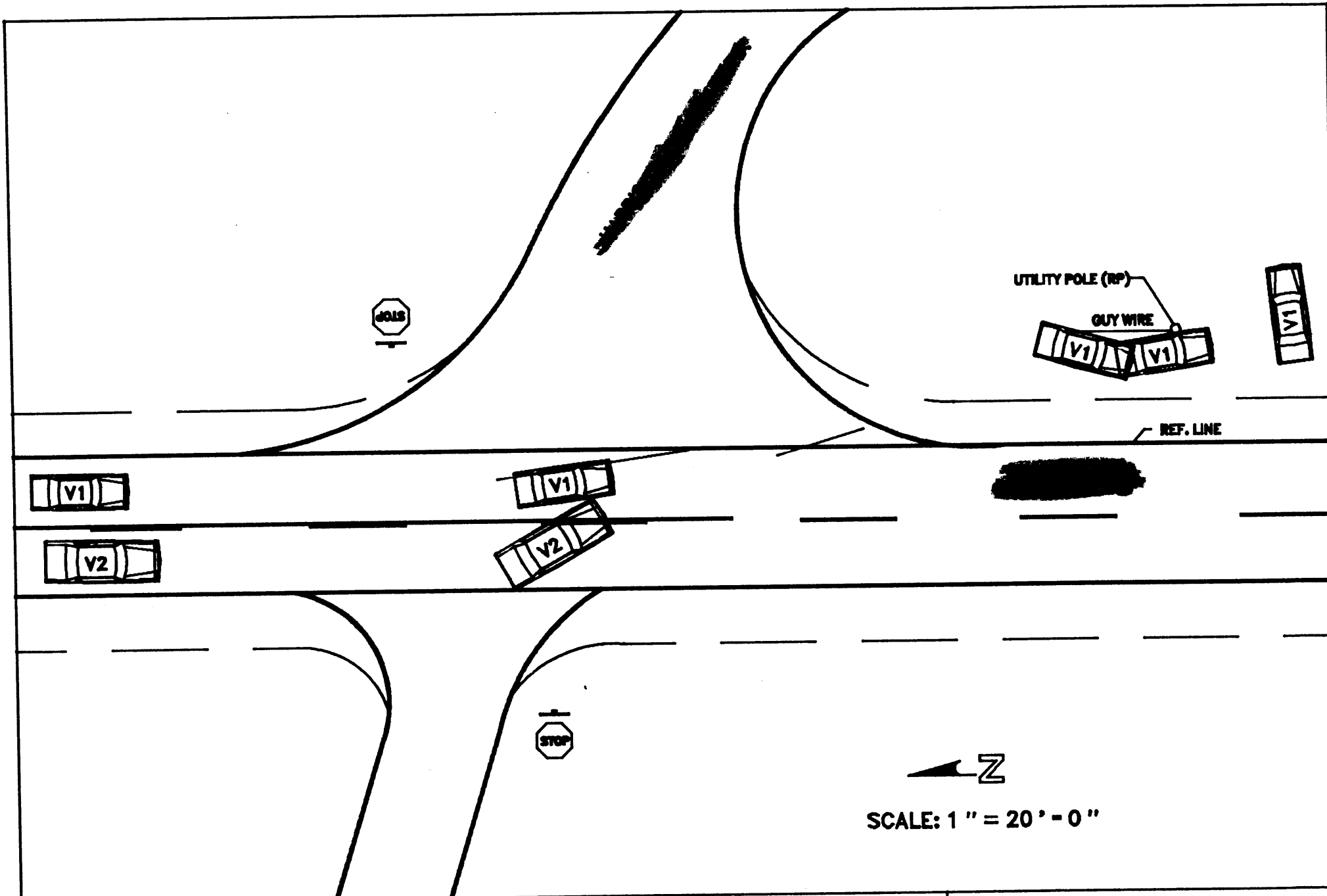
This report is an in-depth, off-scene vehicle accident study involving a 1990 Dodge Daytona (equipped with a supplemental airbag restraint system) involved in impacts with a 1974 Ford Torino, a guy wire and a wooden utility pole. The accident occurred on [REDACTED], 1990, at 0945 hours, at the intersection of State Highway [REDACTED] and [REDACTED] Road in [REDACTED] just south of [REDACTED], Arkansas.

Prior to the accident, the Daytona was proceeding south on State Route [REDACTED] traveling behind the Torino. As the vehicles neared the intersection with [REDACTED] Road, the Daytona attempted to pass the Torino. When the vehicles reached the intersection the Torino attempted a left turn onto [REDACTED] Road and struck the right side of the Daytona as it passed by.

The impact to the right side of the Daytona caused the vehicle to rotate clockwise as it departed the left side of the roadway. The Daytona traveled approximately 65 feet on the roadside to where it struck a guy wire. The left rear quarter-panel impacted the guy wire. Upon impact with the guy wire the Daytona changed direction and began to rotate counter-clockwise and traveled 18 feet to impact with the wooden utility pole. The left side surface just behind the left front wheel impacted the pole resulting in maximum residual crush of 7.5 inches. EDCRASH computed a Delta V of 9.4 mph for this impact which was sufficient to deploy the airbag module.

Following impact with the pole the vehicle rotated rapidly counter-clockwise and traveled another 22.5 feet to its final rest position. The vehicle was 20 feet east of the east road edge at final rest. The Daytona was disabled and a wrecker was called to tow the vehicle to a storage facility. The vehicle was subsequently "totaled" by the insurance company with a repair estimate in excess of \$9,799.03.

The driver was not restrained by his active lap and shoulder belt system when the accident occurred. His only injury was a small laceration to his right hand. The source of the injury is not known. He did not require medical treatment for this injury. The right front passenger was not restrained by his active lap and shoulder belt system. The left side impact caused the passenger to move left in relation to the vehicle's interior and he sustained a small contusion to his lower left leg from contacting the console during the accident sequence. He also contacted the deployed airbag and both the driver and passenger credit the airbag for reducing their injuries.



NHTSA IN-DEPTH AIRBAG ACCIDENT INVESTIGATION CASE: 90-10

ACCIDENT DATE: 6-90

LOCATION: [REDACTED], ARKANSAS

NATIONAL CAPITOL
SYSTEMS, INCORPORATED

NCSI ACCIDENT INVESTIGATION
CASE NO. 90-10
[REDACTED], ARKANSAS

IDENTIFICATION

Location: Intersection of State Highway [REDACTED] and
[REDACTED] Rd. near [REDACTED], AR

Area/Type: Rural/Wooded Area

Accident Date/Time: [REDACTED] 1990, 0945 hours

Notification Date/Time: [REDACTED] 1990, 0800 hours

Accident Type: Car/Car, Same direction sideswipe
Car/Guy Wire, Left side impact
Car/Pole, Left side impact

Vehicle Occupant
Injury Severity: Minor Injury (AIS-1)

AMBIENCE

Viewing Conditions: Daylight

Weather: No adverse conditions

Precipitation: None

Road Surface: Dry

Temperature: 80 degrees

ROADWAY

Location: State Highway [REDACTED]

Type: Principal arterial

Traffic Density: Moderate

Width: 22 feet 0 inches

Number of Lanes: Two

Median: None

ROADWAY CONT'D

Shoulder: East - 8 ft. 9 in. gravel shoulder
West - 6 ft. 11 in. gravel shoulder

Surface: Asphalt

Vertical Alignment: Negative (1.5 percent)

Horizontal Alignment: Straight

TRAFFIC CONTROLS

Signals: None

Signs: No pertinent signs

Markings: Dashed center line
No passing line for northbound traffic
White road edge (fog) lines

Speed Limit: 55 miles per hour

VEHICLE

	<u>Airbag vehicle</u>	<u>Vehicle #2</u>
Year:	1990	1974
Make:	Dodge	Ford
Model:	Daytona	Torino
Body Style:	Two door hatchback	Four door
VIN:	1B3XG2430LG*****	4A27H*****
Color:	White	Black
Odometer:	9,416	
Transmission:	Automatic, floor mounted transmission selector	
Active Restraints:	Lap and shoulder belts for the left front and right front seats; Lap and shoulder belts for the left rear and right rear seats	

VEHICLE CONT'D

	<u>Airbag Vehicle</u>	<u>Vehicle #2</u>
Passive Restraints:	Automatic inflatable restraint system for the driver's seating position	None
Defects:	None	Signal lights
Tow Status:	Towed due to damage	Driven

VEHICLE DAMAGE

Exterior:	<p>The right side of the airbag vehicle was struck by vehicle #2. Direct contact damage extended 90 inches along the right side from just behind the right front wheel to the right rear wheel. The most significant crush was along the lower surface of the door. A CDC of 01-RZEW-2 was assigned to this impact damage. Crush dimensions measured at the lower right side surface were:</p> <table><tbody><tr><td>C1 = 1.4"</td><td>C2 = 3.0"</td></tr><tr><td>C3 = 2.8"</td><td>C4 = 3.0"</td></tr><tr><td>C5 = 2.5"</td><td>C6 = 0.0"</td></tr></tbody></table>	C1 = 1.4"	C2 = 3.0"	C3 = 2.8"	C4 = 3.0"	C5 = 2.5"	C6 = 0.0"	<p>The left front corner of vehicle #2 struck the right side of the airbag vehicle. The damage to vehicle #2 was estimated at \$1500. The vehicle was driven from the scene following the accident. The vehicle was not available for inspection, therefore CDC and crush measurements are unknown.</p>
C1 = 1.4"	C2 = 3.0"							
C3 = 2.8"	C4 = 3.0"							
C5 = 2.5"	C6 = 0.0"							

Following the impact with vehicle #2, the airbag vehicle rotated clockwise and departed the roadway with the left side leading. The left rear quarter-panel struck a guy wire resulting in direct damage that extended 6 inches along the left side surface. Direct plus induced damage extended 33 inches along the left rear quarter-panel. A CDC of 10-LBEN-01 was assigned

VEHICLE DAMAGE CONT'D

Airbag Vehicle

to this impact damage.
Crush measurements above
the wheel well were:

C1 = 0.0"	C2 = 0.3"
C3 = 2.3"	C4 = 1.8"
C5 = 0.4"	C6 = 0.0"

Upon impact with the guy
wire the vehicle changed
direction and began to
rotate counter-clockwise.
The vehicle then impacted
a wooden utility pole
which resulted in the
most severe impact in the
collision sequence.

Direct impact damage from
the pole measured 16.0
inches from the rear of
the left front wheel to
the left front A-pillar.
Direct plus induced
damage extended 96 inches
along the left side from
the left front corner to
the middle of the left
door. A CDC of 11-LYAW-02
was assigned to this
impact damage. Crush
dimensions measured along
the left side were:

C1 = 0.0 "	C2 = 0.25"
C3 = 7.25"	C4 = 3.0 "
C5 = 0.0 "	C6 = 0.0 "

Damaged components in-
cluded the hood, left
side wheel covers, left
front fender, left door,
left rocker panel, left
rear quarter-panel, right
front fender, right door,
right rear wheel, left
upper frame rail, roof,
left floor pan, etc.

VEHICLE DAMAGE CONT'D

	<u>Airbag Vehicle</u>	<u>Vehicle #2</u>
CDCs:	01-RZEW-02 (Vehicle #2) 10-LBEN-01 (Guy Wire) 11-LYAW-02 (Utility Pole)	
Repair Cost:	\$9,799.03 +	\$1,500.00
Interior:	<p>Interior damage resulted from the airbag deployment, occupant contact and intrusion from exterior damage.</p> <p>Airbag deployment resulted in separation of the steering wheel cover at the designated perforations. The airbag remained intact without any tears or cuts noted. Only a small smudge was found on surface of the deployed airbag.</p> <p>Occupant contact resulted in interior damage to the lower left instrument panel, center instrument panel, rear view mirror, and the glove box. Both the driver and right front passenger contacted the vehicle's interior during the pole impact.</p> <p>Approximately 2 inches of intrusion was noted to the left upper A-pillar from impact with the pole. This also resulted in damage to the windshield and upper instrument panel. Intrusion of approximately 1 inch was noted to the left upper instrument panel.</p>	<p>Vehicle #2 was not inspected, but no interior damage is believed to have resulted from the impact with the airbag vehicle.</p>

VEHICLE VELOCITY ESTIMATES

The barrier mode of the EDCRASH program was used to compute a change in velocity (Delta V) for the airbag vehicle's left side impact with the wooden utility pole. The impacts with the guy wire and the sideswipe impact with vehicle #2 are outside the scope of EDCRASH and were not calculated. The results of the computer generated Delta V for the deployment impact with the pole are as follows:

Total Delta V:	9.4 mph
Longitudinal Delta V:	-8.2 mph
Lateral Delta V:	4.7 mph

COLLISION SEQUENCE

Pre-Impact: At approximately 0945 hours on [REDACTED] 1990, the Dodge Daytona was traveling south on State Route [REDACTED] just leaving the city limit of [REDACTED], Arkansas. In this vicinity the roadway is straight with a slight negative grade of 1.5 percent along the vehicle's path of travel. The roadway is a two lane road with a posted speed limit of 55 miles per hour. The road was dry and the weather was clear at the time.

According to the driver of the Daytona, as he was traveling south on State [REDACTED] he was behind a Ford Torino (vehicle #2). He attempted to pass vehicle #2 as the vehicles approached the intersection with [REDACTED]. Vehicle #2 attempted a left turn onto [REDACTED] and struck the right side of the Daytona as it was going by. Following this impact the Daytona rotated clockwise and went off the east roadside to impact a utility pole and guy wire with its left side.

Impact: Evidence at the scene indicates the left front tire of the Daytona skidded 31 feet on the roadway in the impact area. Another tire (probably the right front) skidded roughly 10 feet as the vehicle departed the roadway. The vehicle traveled 63.5 feet on the road side before impacting the guy wire with the left rear quarter-panel. Upon impact with the guy

COLLISION SEQUENCE CONT'D

wire the vehicle changed direction and began to rotate counter-clockwise. The vehicle traveled 18 feet to where the left side (just behind the left front wheel) impacted the wooden utility pole. This impact resulted in maximum residual crush of 7.5 inches and an EDCRASH computed Delta V of 9.4 miles per hour. The airbag module deployed on impact with the pole.

Post-Impact: Following impact with the utility pole the vehicle rotated rapidly counter-clockwise and traveled another 22.5 feet to its final rest position. In all the vehicle traveled 116.5 feet from where the initial skid mark began to its final rest position. The vehicle was 20 feet east of the east road edge at final rest.

Driver Activities: The driver and his passenger sustained only minor injuries in the accident and were able to exit the vehicle without assistance. The driver stated that following deployment of the airbag the car filled with smoke and they thought the vehicle was on fire and could explode. Both doors were jammed by damage so the occupants exited through the rear hatchback and ran from the vehicle.

Police Activities: A state trooper was dispatched to the scene at 1005 hours but did not arrive on scene until 1115 hours due to the distance from the state police office. The vehicles were off the main roadway at their final rest positions so traffic control procedures were not necessary. Following acquisition of all pertinent accident data, the driver of vehicle #2 was issued a summons for no vehicle license.

Rescue Activities: The drivers did not require emergency medical attention, therefore an ambulance was not dispatched to the scene.

Scene Clearance: The Daytona sustained disabling damage and was towed from the accident scene to a storage yard. The Torino was not disabled and continued on to its destination following the police investigation.

RELEVANT SAFETY ISSUES

Applicable Standards:

FMVSS 208: Occupant Crash Protection in Passenger Cars, Multipurpose Passenger Vehicles, Trucks and Busses. This standard provides requirements for the installation of passive restraint systems in passenger vehicles. The Dodge Daytona was equipped with a driver side airbag module.

The airbag deployed as a result of the left side impact with the pole. The system operated properly and effectively. The driver, who was not restrained by his active lap and shoulder belt system, sustained only minor injuries from the crash. He credits the airbag for reducing his injuries.

HUMAN FACTORS / OCCUPANT DATA

DRIVER DATA

Age:	17
Sex:	Male
Height:	74 Inches
Weight:	186 Pounds
Posture:	Normal
Ejected:	No
Entrapped:	No
Manual Restraint System Usage:	None
Passive Restraint System Usage:	Airbag
Vision:	Normal
Physical State:	Normal

DRIVER DATA CONT'D

Psychological
State: Normal

Driver Experience: 2 Years

Driver Education: High school

Vehicle
Familiarity: Daily

Route Familiarity: Weekly

Type of Treatment: None

Days in Hospital: None

Work Days Lost: None

DRIVER INJURIES

<u>Injury</u>	<u>Severity (AIS)</u>	<u>Source</u>
Cut right hand	AIS-1	Unknown

Injury Coding

I.S.S. Body Region	O.I.C. Body Region	Aspect	Lesion	System Organ	A.I.S. Severity	Injury Source
6	W	R	L	I	1	97

PASSENGER DATA

Age: 16

Sex: Male

Height: 73 Inches

Weight: 190 Pounds

Posture: Normal

PASSENGER DATA CONT'D

Ejected: No
Entrapped: No
Manual Restraint
System Usage: None
Passive Restraint
System Usage: None
Type of Treatment: None
Days in Hospital: None
Work Days Lost: None

PASSENGER INJURIES

<u>Injury</u>	<u>Severity (AIS)</u>	<u>Source</u>
Bruise left leg	AIS-1	Console

Injury Coding

I.S.S. Body Region	O.I.C. Body Region	Aspect	Lesion	System Organ	A.I.S. Severity	Injury Source
6	L	L	C	I	1	57

SELECTED PRINTS



1. Pre-impact direction of travel of both vehicles, south on State



2. Area where the airbag vehicle begins to pass vehicle #2.



3. Area of impact between the airbag vehicle and vehicle #2.



4. Path of the airbag vehicle following impact with vehicle #2.



5. Path of the airbag vehicle to impact with the guy wire and wooden utility pole. .



6. View of the impact area with the utility pole and final rest area of the airbag vehicle. Note the pole has been replaced.



7. View of the area where vehicle #2 attempts a left turn onto Road.



8. Area of impact between vehicle #2 and the airbag vehicle.



9. Frontal view of the airbag vehicle.



10. Right front three-quarter view of the vehicle showing damage from the impact with vehicle #2.



11. Right rear three-quarter view showing damage to the right side.



12. Left rear three-quarter view of the vehicle showing damage from the guy wire impact.



13. Left side view of the damage sustained in the impact with the pole.



14. Left front three-quarter view of the Daytona.



15. Interior view showing the deployed airbag.



16. Interior view showing possible occupant contact to the airbag and driver's door.



17. Interior view showing occupant contact to the rearview mirror, windshield and dash.



18. Interior view showing areas of possible occupant contact.



19. View of the right front passenger's area showing possible occupant contact and damaged interior components.







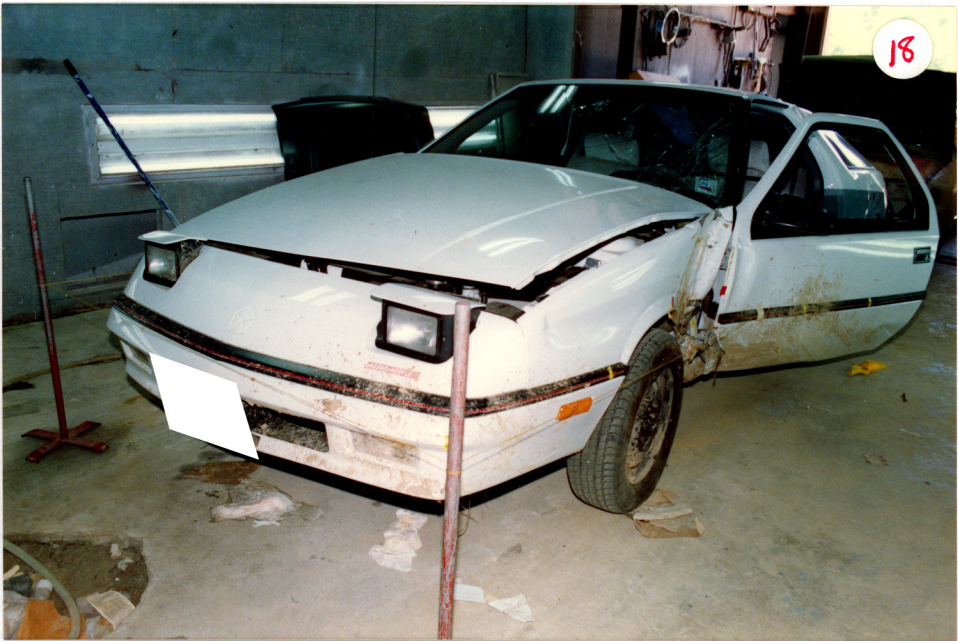


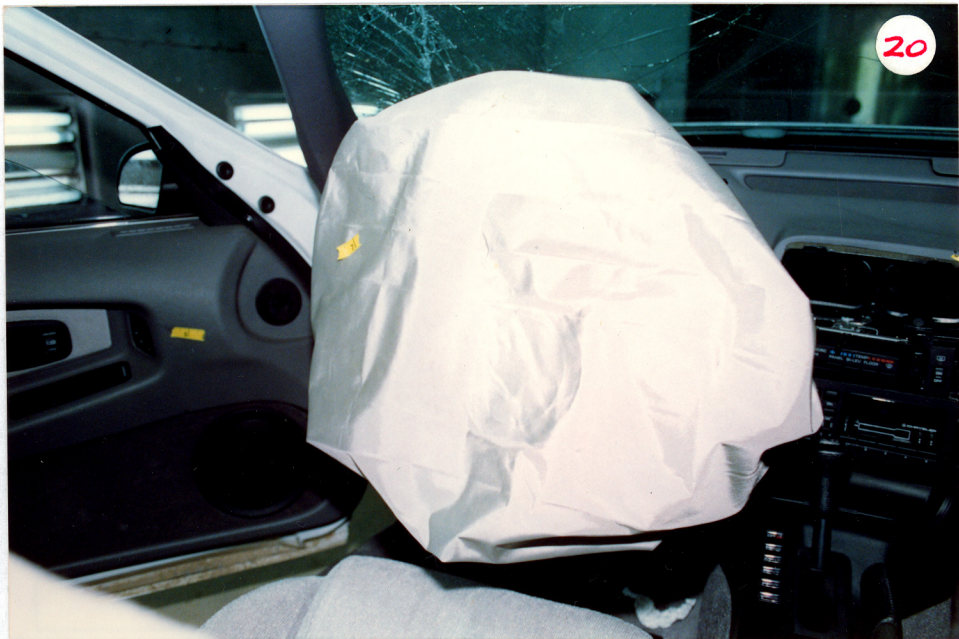














SLIDE INDEX

NCSI 90-10

[REDACTED], Arkansas

SCENE:

- 1-2. Pre-impact direction of travel of the Dodge Daytona (airbag vehicle) and the Ford Torino (vehicle #2), south on [REDACTED].
- 3-4. Views of the area where the Daytona crosses the center line to pass vehicle #2.
5. View of the start of the skid mark from the left front tire of the Daytona.
6. Continuation of the skid mark as it departs the roadway. This is also the area of impact.
7. Another tire mark, probably from the right front tire of the Daytona is shown departing the roadway.
8. Continuation of the vehicle's path as it travels on the roadside following impact with vehicle #2. The vehicle is rotating clockwise as it travels in this area.
9. Area where the left rear side of the Daytona impacts the guy wire and begins to rotate counter-clockwise.
10. View of the vehicle's path to the impact with the wooden utility pole.
11. Close-up view of the impact area with the pole. (Note the pole has been replaced).
12. Path of the vehicle from impact with the pole to its final rest position.
13. Opposite view of the accident scene taken from beyond the last impact with the pole. This view is taken from the final rest position of the Daytona.
- 14-15. Pre-impact travel of vehicle #2.
16. Vehicle #2 attempts a left turn onto [REDACTED].
17. Area of impact between the Daytona and vehicle #2.
18. Opposite view (looking north) taken from the impact area.

SLIDE INDEX CONT'D**AIRBAG VEHICLE:**

19. Frontal view of the Dodge Daytona.
20. Right front three-quarter view of the vehicle.
- 21-23. Views of the right side passenger door showing crush form the impact with vehicle #2.
24. Right rear three-quarter view of the vehicle. Note the right rear wheel has been replaced.
25. Left rear three-quarter view of the Daytona.
- 26-27. Close-up views of the impact damage to the left rear quarter-panel from the guy wire.
- 28-30. Left side views of the impact damage and crush from the wooden utility pole.
31. View of the upper A-pillar and windshield damage.
- 32-33. Left front views of the Daytona showing impact damage.
34. Additional view of the pole impact damage.
35. View of the right front airbag sensor.
36. Interior view of the driver's door showing a possible scuff mark from occupant contact.
37. Interior view of the upper A-pillar.
38. View of the lower instrument panel.
39. View of the deployed airbag.
40. Close-up of the airbag showing a transfer from occupant contact.
- 41-42. Additional views of the airbag.
43. View showing possible occupant contact to the center instrument panel and the rearview mirror.
- 44-45. Interior views of the right side instrument panel.
46. View of interior parts knocked loose during the accident.



NC9010 #1



NC9010 #2



NC9010 #3



NC 9010 #4



NC 9010 #5



NC 9010 #6



NC 9010 #7



NC9010 #8



NC9010 #9



NC9010 #10



NC9010 #11



NC9010 #12



NC9010 #13



NC9010 #14



NC9010 #15



NC9010 #16



NC9010 #17



NC9010 #18



NC9010 #19



NC 9010 #20



NC9010 #21



NC9010 #22
Best Available



NC 9010 #23
Best Available



NC9010 #24



NC9010 #25
Best Available



NC 9010 #26
Best Available



NC9010 #27
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NC9010 #28
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NC9010 #29
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NC 9010 #30
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NC9010 #31



NC9010 #32
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NC9010 #33



NC 9010 #34



NC9010 #35



NC9010 #36
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NC9010 #37



NC9010 #38
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NC9010 #41



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NC9010 #45



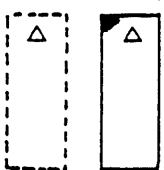
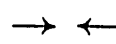
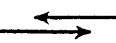
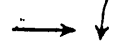

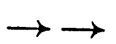
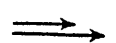






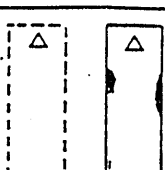
NC9010 #46

Appendix A:
POLICE ACCIDENT REPORT

ARKANSAS MOTOR VEHICLE TRAFFIC ACCIDENT REPORT

BEST AVAILABLE COPY

Incident #		Unit Assigned		Premises		Geo. Code		District		Accident Severity/Injury 1. <input type="checkbox"/> Fatal Injury 2. <input type="checkbox"/> Incapacitating Injury 3. <input type="checkbox"/> Nonincapacitating Injury 4. <input checked="" type="checkbox"/> Possible Injury 5. <input type="checkbox"/> Property Damage only	
County		City		Road/Street of Accident Occurrence		Distance		Log Mile			
Not in City, but .4 Mile		from nearest city limit		Section		Log Mile		Date			
Road/Street of Accident Occurrence		If on numbered Highway/County Road, give #		Section		Log Mile		Day of Week			
At its intersection with		Give # Highway, County Road, Name of City Street as applicable		Special Reference		Not at intersection, but		Time		No. Vehicles Involved	
Distance		N S E W		Reference Point		(Use only the following as Reference Points) Intersecting Highway, County Road, City Street, Bridge, Railroad Crossing, Overpass, Underpass, Milepost, State Line, County Line, City Limit		HIT & RUN		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
Vehicle		74 Ford Torino 4Dr.		Reg. 92 La.		Vin # 4A27H		Seating Position			
Owner		Address		Year		State		Number			
<input type="checkbox"/> Rented to		No		Address				00 - Nonoccupant			
<input type="checkbox"/> Leased to		Address						11 - Front Seat L.S.			
Trailers		<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes # Units		Reg. State.		Plate #		32 - Third Seat C.			
Prior Vehicle Damage		None Noted		Vehicle Defects		Turn Signals		35 - Third Seat R.S.			
Vehicle Damage as result of Accident		<input type="checkbox"/> Disabled <input type="checkbox"/> Functional <input checked="" type="checkbox"/> Other Damage <input type="checkbox"/> No Damage		Investigator's Estimated Cost to Repair \$		1500.00		39 - Third Seat Not Known			
<input checked="" type="checkbox"/> Driven away		By		To		Traffic		42 - Fourth Seat L.S.			
<input type="checkbox"/> Towed away		By		To				45 - Fourth Seat R.S.			
								49 - Fourth Seat Not Known			
								50 - Sleeper Section Cab of Tr			
								51 - Open Bed of Truck			
								52 - In Training Unit			
								53 - Riding on Ven. Exterior			
								99 - Not Known			
Operator		Address		Type License: Chauffeur <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Cyclist <input type="checkbox"/> School Bus <input type="checkbox"/> Learner Permit <input type="checkbox"/> Court Permit <input type="checkbox"/> Restricted <input type="checkbox"/> No License <input type="checkbox"/>		BAC Test: Yes <input type="checkbox"/> Results If Known		Not Tested <input checked="" type="checkbox"/> Refused Test <input type="checkbox"/>			
Operator Residence: Local <input checked="" type="checkbox"/> Elsewhere in State <input type="checkbox"/> Nonresident of State <input type="checkbox"/> Residence Not Known <input type="checkbox"/>		Ar.		Operator Data DOB		52		Race		Sex	
Operator License		State		Operator Data DOB		52		Age		Inj.	
Name		Address		Name		Address		Seat Pos.		Type	
Name		Address		Name		Address		1		3	
Name		Address		Name		Address		2		3	
Name		Address		Name		Address		3		3	
Name		Address		Name		Address		4		3	
Name		Address		Name		Address		5		3	
Name		Address		Name		Address		6		3	
Name		Address		Name		Address		7		3	
Name		Address		Name		Address		8		3	
Name		Address		Name		Address		9		3	
Vehicle		90 Dodge Datona 2Dr.		Reg. None		Vin # 1B3XG2430LG		Occupant Restraint System			
Owner		Address		Year		State		Number			
<input type="checkbox"/> Rented to		No		Address							
<input type="checkbox"/> Leased to		Address									
Trailers		<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes # Units		Reg. State.		Plate #		Cargo			
Prior Vehicle Damage		None Noted		Vehicle Defects		None Noted		0 - None Used			
Vehicle Damage as result of Accident		<input type="checkbox"/> Disabled <input type="checkbox"/> Functional <input type="checkbox"/> Other Damage <input type="checkbox"/> No Damage		Investigator's Estimated Cost to Repair \$		4000.00		1 - Shoulder Belt			
<input checked="" type="checkbox"/> Driven away		By		To		Wrecker		2 - Lap Belt			
<input type="checkbox"/> Towed away		By		To				3 - Lap & Shoulder Belts			
								4 - Child Safety Seat			
								5 - Motorcycle Helmet			
								6 - Deployed Air Bag			
								7 - Non-Deployed Air Bag			
								8 - Restraint Used - Type Unknown			
								9 - Unknown			
Operator		Address		Type License: Chauffeur <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Cyclist <input type="checkbox"/> School Bus <input type="checkbox"/> Learner Permit <input type="checkbox"/> Court Permit <input type="checkbox"/> Restricted <input type="checkbox"/> No License <input type="checkbox"/>		BAC Test: Yes <input type="checkbox"/> Results If Known		Not Tested <input checked="" type="checkbox"/> Refused Test <input type="checkbox"/>			
Operator Residence: Local <input checked="" type="checkbox"/> Elsewhere in State <input type="checkbox"/> Nonresident of State <input type="checkbox"/> Residence Not Known <input type="checkbox"/>		Ar.		Operator Data DOB		72		Race		Sex	
Operator License		State		Operator Data DOB		72		Age		Inj.	
Name		Address		Name		Address		Seat Pos.		Type	
Name		Address		Name		Address		1		6	
Name		Address		Name		Address		2		6	
Name		Address		Name		Address		3		6	
Name		Address		Name		Address		4		6	
Name		Address		Name		Address		5		6	
Name		Address		Name		Address		6		6	
Name		Address		Name		Address		7		6	
Name		Address		Name		Address		8		6	
Name		Address		Name		Address		9		6	

Veh 1. Damage <input type="checkbox"/> None <input type="checkbox"/> Overturned <input type="checkbox"/> Burned <input type="checkbox"/> Submerged <input type="checkbox"/> Top <input type="checkbox"/> U.Carriage <input type="checkbox"/> Unknown		<input type="checkbox"/> Head On  <input type="checkbox"/> Sideswipe  <input type="checkbox"/> Left Turn  <input type="checkbox"/> Left Turn 	<input type="checkbox"/> Rear End  <input type="checkbox"/> Sideswipe  <input type="checkbox"/> Right Turn  <input type="checkbox"/> Right Turn 	<input type="checkbox"/> Angle  <input type="checkbox"/> Overturn  <input type="checkbox"/> Backing  <input checked="" type="checkbox"/> Other 	Veh 2. Damage <input type="checkbox"/> None <input type="checkbox"/> Overturned <input type="checkbox"/> Burned <input type="checkbox"/> Submerged <input type="checkbox"/> Top <input type="checkbox"/> U.Carriage <input type="checkbox"/> Unknown	
Color <u>Blk</u>				Color <u>Whi.</u>		
Body Style <u>4Dr.</u>				Body Style <u>2Dr.</u>		
Point of Initial Contact <u>Left Front</u>				Point of Initial Contact <u>Right Side</u>		

INVESTIGATOR DESCRIPTION: (Refer to vehicle by operator)

The operator of V-1 [REDACTED] was traveling south on S.H. [REDACTED] and attempted to make a left turn onto [REDACTED] Rd. as V-2 was passing. V-1 struck the right side of V-2, with the left front of V-1. V-2 traveled into the ditch and struck an AP&L pole with the left side. [REDACTED] stated she was getting ready to turn and saw V-2 way back behind her. She turned her signal light on at aprox. mile pole 27.7 and looked back and did not see anything and started making her turn and they hit. This officer checked the signal lights on V-1 after the accident, and they did not work. She stated she had a problem with them blowing fuses but they were working before the accident. The operator of V-2 [REDACTED] stated they came over the hill and saw he had plenty of time to pass, and it was a legal passing zone. V-1 was going slow and at a steady speed. There wasn't anything coming and V-1 did not have her signal light on, so he started passing.

He was more than even with them when they started turning. He stated he did not sound his horn before passing.

There was damage to telephone lines, but this officer was unable to get the information from the telephone company.

DIAGRAM: (If space adequate)

 Indicate
North, Use
Arrow

 Arrest: [REDACTED] Charge No Ark. Veh. Lic. [REDACTED] Summons # [REDACTED]

Arrest: _____ Charge _____ Summons # _____

 Time notified of accident 10:05 AM Time arrived 11:15 AM Date [REDACTED] 90

The data in this report reflects my best judgement and knowledge based on information available to me.

 Photos ☐ Yes ☒ No

Investigation and Reporting of Motor Vehicle Traffic Accidents

Within their jurisdiction and cooperatively in overlapping jurisdictional situations, law enforcement officers of Arkansas are declared to be responsible for the investigation and reporting of all traffic accidents and the deaths, injuries and property damage resulting therefrom.

The responsible investigating officer shall make the investigation with all possible promptness and the investigating officer shall file the report thereon with the Department of Arkansas State Police within five (5) days subsequent to the actual investigation. (Acts 1967, No. 246.)

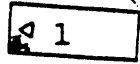
Page four may be used when additional space is required to complete the Accident Report.

5' Gravel Shoulder →

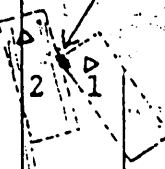
S.H.

22'

AOI AP&L
#2 Pole



AOI#1



V-2 skid to AOI#1=36'

V-2 trav. aprox. 66' from AOI#1
to AOI#2 then aprox. 18' to rest

No skid from V-1

Unable to determine exact AOI#1

Atmospheric Conditions 0 <input type="checkbox"/> No Adverse Conditions 1 <input type="checkbox"/> Rain 2 <input type="checkbox"/> Sleet <u>80</u> 3 <input type="checkbox"/> Snow 4 <input type="checkbox"/> Fog Temperature 5 <input type="checkbox"/> High Winds 6 <input type="checkbox"/> Smoke 7 <input type="checkbox"/> Smog 8 <input type="checkbox"/> Dust 9 <input type="checkbox"/> Other _____ 10 <input type="checkbox"/> Not Known Light Conditions 1 <input checked="" type="checkbox"/> Daylight 2 <input type="checkbox"/> Dark 3 <input type="checkbox"/> Dawn 4 <input type="checkbox"/> Dusk 5 <input type="checkbox"/> Dark but lighted 6 <input type="checkbox"/> Dark, light not functioning 7 <input type="checkbox"/> Not Known Accident Locale 1 <input checked="" type="checkbox"/> Rural 2 <input type="checkbox"/> Urban 3 <input type="checkbox"/> Not Known Roadway Surface Condition 1 <input checked="" type="checkbox"/> Dry 2 <input type="checkbox"/> Wet 3 <input type="checkbox"/> Ice 4 <input type="checkbox"/> Sand 5 <input type="checkbox"/> Dirt 6 <input type="checkbox"/> Oil 7 <input type="checkbox"/> Other _____ 8 <input type="checkbox"/> Not Known Road System Speed Limit <u>55</u> Posted <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 1 <input type="checkbox"/> Interstate 2 <input type="checkbox"/> U.S. Hwy. 3 <input checked="" type="checkbox"/> State Hwy. 4 <input type="checkbox"/> County Road 5 <input type="checkbox"/> City Street 6 <input type="checkbox"/> Other _____ 7 <input type="checkbox"/> Not Known Road Surface Type 1 <input type="checkbox"/> Concrete 2 <input checked="" type="checkbox"/> Asphalt 3 <input type="checkbox"/> Gravel 4 <input type="checkbox"/> Dirt 5 <input type="checkbox"/> Other _____ 6 <input type="checkbox"/> Not Known Roadway Alignment/Profile 1 <input checked="" type="checkbox"/> Straight 1 <input checked="" type="checkbox"/> Level 2 <input type="checkbox"/> Curve 2 <input type="checkbox"/> Grade 3 <input type="checkbox"/> Not Known 3 <input type="checkbox"/> Hillcrest 4 <input type="checkbox"/> Sag 5 <input type="checkbox"/> Not Known Construction/Maintenance Zone 1 <input type="checkbox"/> Yes 2 <input checked="" type="checkbox"/> No 3 <input type="checkbox"/> Highway Const 4 <input type="checkbox"/> Utility 5 <input type="checkbox"/> Other _____ Protected <input type="checkbox"/> No 7 <input type="checkbox"/> Yes How _____ 8 <input type="checkbox"/> Reduced Road Width 9 <input type="checkbox"/> Road Repair 10 <input type="checkbox"/> Maintenance Trafficway Flow 1 <input type="checkbox"/> Divided 2 <input checked="" type="checkbox"/> Not Divided <u>2</u> 3 <input type="checkbox"/> Divided by Median # Lanes 4 <input type="checkbox"/> Divided by Other Barrier 5 <input type="checkbox"/> Divided by Temporary Barrier 6 <input type="checkbox"/> One Way Traffic 7 <input type="checkbox"/> Not Known Roadway Conditions 0 <input checked="" type="checkbox"/> No Adverse Conditions 1 <input type="checkbox"/> Obstruction, Warning 2 <input type="checkbox"/> Obstruction, No Warning 3 <input type="checkbox"/> Loose Materials on Surface 4 <input type="checkbox"/> Holes 5 <input type="checkbox"/> Ruts 6 <input type="checkbox"/> Bumps 7 <input type="checkbox"/> Defective Shoulders 8 <input type="checkbox"/> No Markings 9 <input type="checkbox"/> Other Defects _____ 10 <input type="checkbox"/> Defects Not Known Relation to Junction 0 <input type="checkbox"/> Non-Junction 1 <input checked="" type="checkbox"/> Intersection 2 <input type="checkbox"/> Intersection Related 3 <input type="checkbox"/> Driveway 4 <input type="checkbox"/> Alley 5 <input type="checkbox"/> Exit Lane 6 <input type="checkbox"/> Entrance Lane 7 <input type="checkbox"/> RR Crossing 8 <input type="checkbox"/> Crossover Lane 9 <input type="checkbox"/> Other _____ 10 <input type="checkbox"/> Not Known	Traffic Controls 0 <input type="checkbox"/> No Controls Present 1 <input type="checkbox"/> Flashing Beacon 2 <input type="checkbox"/> Traffic Signal 3 <input type="checkbox"/> Stop Sign 4 <input type="checkbox"/> Yield Sign 5 <input type="checkbox"/> RR Crossing with Gates & Lights 6 <input type="checkbox"/> RR Crossing, Flashing Lights Only 7 <input type="checkbox"/> RR Crossing, Crossbuck Only 8 <input type="checkbox"/> School Zone, Children Present 9 <input type="checkbox"/> Pedestrian Signal 10 <input checked="" type="checkbox"/> Lane Markings 11 <input type="checkbox"/> Other Controls _____ 12 <input type="checkbox"/> Controls Not Known 13 <input type="checkbox"/> Device Not Functioning 14 <input type="checkbox"/> Device Functioning Properly 15 <input type="checkbox"/> Device Functioning Improperly Vehicle Travel Direction V1 <input type="checkbox"/> N <input checked="" type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W V2 <input type="checkbox"/> N <input checked="" type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W Vehicle Action V1 1 <input type="checkbox"/> Going Straight 2 <input type="checkbox"/> Negotiating Curve 3 <input type="checkbox"/> Slowing 4 <input type="checkbox"/> Stopped in Traffic Lane 5 <input type="checkbox"/> Merging 6 <input type="checkbox"/> Enter, Parked Position 7 <input type="checkbox"/> Exit, Parked Position 8 <input type="checkbox"/> Parked 9 <input type="checkbox"/> Turning Right 10 <input type="checkbox"/> Turning Right on Red 11 <input type="checkbox"/> Turning Left 12 <input type="checkbox"/> Turning Left on Red 13 <input type="checkbox"/> Making U Turn 14 <input type="checkbox"/> Backing 15 <input type="checkbox"/> Avoiding Vehicle 16 <input type="checkbox"/> Avoiding Pedestrian 17 <input type="checkbox"/> Avoiding Animal 18 <input type="checkbox"/> Avoiding Other Object 19 <input type="checkbox"/> Passing 20 <input type="checkbox"/> Changing Lanes 21 <input type="checkbox"/> Other Action 22 <input type="checkbox"/> Action Not Known V2 1 <input type="checkbox"/> Vision not obscured 2 <input type="checkbox"/> Rain 3 <input type="checkbox"/> Snow 4 <input type="checkbox"/> Sleet 5 <input type="checkbox"/> Glare 6 <input type="checkbox"/> Sunlight 7 <input type="checkbox"/> Headlights 8 <input type="checkbox"/> Building 9 <input type="checkbox"/> Billboard 10 <input type="checkbox"/> Trees 11 <input type="checkbox"/> Shrubs 12 <input type="checkbox"/> Other Vegetation 13 <input type="checkbox"/> Moving Vehicle 14 <input type="checkbox"/> Parked Vehicle 15 <input type="checkbox"/> Ice on Windshield 16 <input type="checkbox"/> Fog on Windshield 17 <input type="checkbox"/> Broken Windshield 18 <input type="checkbox"/> Dirty Windshield 19 <input type="checkbox"/> Other 20 <input type="checkbox"/> Not Known	Fire Occurrence 0 <input checked="" type="checkbox"/> No Fire Occurrence V1 1 <input type="checkbox"/> Fire Occurrence, Result of Impact V2 2 <input type="checkbox"/> Fire Occurrence, Result of Impact First Harmful Event <table border="0" style="width:100%;"> <tr> <td style="width:50%;">Non-Collision</td> <td style="width:50%;">Collision With</td> </tr> <tr> <td>10 <input type="checkbox"/> Overturn</td> <td>1 <input type="checkbox"/> Pedestrian</td> </tr> <tr> <td>11 <input type="checkbox"/> Fire</td> <td>2 <input type="checkbox"/> Pedacycle</td> </tr> <tr> <td>13 <input type="checkbox"/> Immersion</td> <td>3 <input type="checkbox"/> Railway Train</td> </tr> <tr> <td>14 <input type="checkbox"/> Gas Inhalation</td> <td>4 <input checked="" type="checkbox"/> MV in Transport</td> </tr> <tr> <td>15 <input type="checkbox"/> Fell from Vehicle</td> <td>5 <input type="checkbox"/> MV in Other Roadway</td> </tr> <tr> <td>16 <input type="checkbox"/> Injured in Vehicle</td> <td>6 <input type="checkbox"/> Parked Motor Vehicle</td> </tr> <tr> <td>17 <input type="checkbox"/> Other Non-Collision</td> <td>7 <input type="checkbox"/> Animal</td> </tr> <tr> <td></td> <td>8 <input type="checkbox"/> Other Object Not Fix</td> </tr> </table> Collision with Fixed Object 20 <input type="checkbox"/> _____ Identify Object _____ First Harmful Event Occurred 1 <input checked="" type="checkbox"/> On Roadway 2 <input type="checkbox"/> Shoulder 3 <input type="checkbox"/> Median 4 <input type="checkbox"/> Roadside 5 <input type="checkbox"/> Outside Trafficway 6 <input type="checkbox"/> Location Unknown Most Harmful Event V1 <u>Struck V-2</u> Identify Event _____ V2 <u>Struck By V-1</u> Identify Event _____ Pedestrian Location 1 <input type="checkbox"/> In Crosswalk 6 <input type="checkbox"/> No Crosswalk 2 <input type="checkbox"/> Intersection 7 <input type="checkbox"/> Non-Intersection 3 <input type="checkbox"/> On Roadway 8 <input type="checkbox"/> Sidewalk 4 <input type="checkbox"/> On Road Shoulder 9 <input type="checkbox"/> Location Not Known 5 <input type="checkbox"/> Bike Path 10 <input checked="" type="checkbox"/> No Pedestrian 11 <input type="checkbox"/> Other Location _____ Pedestrian Action 0 <input type="checkbox"/> Not Visible 1 <input type="checkbox"/> Crossing Road, No Intersection 2 <input type="checkbox"/> Crossing at Intersection 3 <input type="checkbox"/> Walking with Traffic 4 <input type="checkbox"/> Walking Against Traffic 5 <input type="checkbox"/> Playing 6 <input type="checkbox"/> Lying in Roadway 7 <input type="checkbox"/> Working 8 <input type="checkbox"/> Standing in Roadway 9 <input checked="" type="checkbox"/> No Pedestrian 10 <input type="checkbox"/> Other Ped. Action _____ 11 <input type="checkbox"/> Action Not Known EMS Time Notified _____ EMS Time Arrived _____ Injured Transported to _____ Transported by _____ INSURANCE CARRIER _____ V1 <u>Ins. Co.</u> V2 _____	Non-Collision	Collision With	10 <input type="checkbox"/> Overturn	1 <input type="checkbox"/> Pedestrian	11 <input type="checkbox"/> Fire	2 <input type="checkbox"/> Pedacycle	13 <input type="checkbox"/> Immersion	3 <input type="checkbox"/> Railway Train	14 <input type="checkbox"/> Gas Inhalation	4 <input checked="" type="checkbox"/> MV in Transport	15 <input type="checkbox"/> Fell from Vehicle	5 <input type="checkbox"/> MV in Other Roadway	16 <input type="checkbox"/> Injured in Vehicle	6 <input type="checkbox"/> Parked Motor Vehicle	17 <input type="checkbox"/> Other Non-Collision	7 <input type="checkbox"/> Animal		8 <input type="checkbox"/> Other Object Not Fix
Non-Collision	Collision With																			
10 <input type="checkbox"/> Overturn	1 <input type="checkbox"/> Pedestrian																			
11 <input type="checkbox"/> Fire	2 <input type="checkbox"/> Pedacycle																			
13 <input type="checkbox"/> Immersion	3 <input type="checkbox"/> Railway Train																			
14 <input type="checkbox"/> Gas Inhalation	4 <input checked="" type="checkbox"/> MV in Transport																			
15 <input type="checkbox"/> Fell from Vehicle	5 <input type="checkbox"/> MV in Other Roadway																			
16 <input type="checkbox"/> Injured in Vehicle	6 <input type="checkbox"/> Parked Motor Vehicle																			
17 <input type="checkbox"/> Other Non-Collision	7 <input type="checkbox"/> Animal																			
	8 <input type="checkbox"/> Other Object Not Fix																			

Damage to Property
Other Than Vehicle

Owner of Property

Notified of Damage

Describe Property

1000.00

Estimate of Damage
10:30 AM -90

Witnesses

Name

Address

Age

Sex

Appendix B:

NASS FORMS

CASE SUMMARY

PSU NCST CASE NO. 90-10 TYPE OF ACCIDENT CAR / CAR - SIDESWIPE SAME DIRECTION
CAR / POLE - LEFT SIDE

A. DESCRIPTION OF THE ACCIDENT SEQUENCE AND ACCIDENT PECULIARITIES

(Provide a summary of the accident sequence as well as any particular event of the accident that is noteworthy. Injury mechanism and vehicle crashworthiness is the focus, not driver culpability. Do not include any personal identifiers. Use reverse side if needed.)

SEE SUMMARY (PAGE 1)

B. VEHICLE PROFILE(S)

Vehicle No.	Class of Vehicle	Year/Make/Model	Most Severe Damage		Component Failure
			Damage Plane	Severity Description	
1	SUBCOMPACT	90/DODGE/DAYTONA	LEFT SIDE	MODERATE	
2	INTERMEDIATE	74/FORD/TORINO	FRONT	MINOR	NONE

C. PERSON PROFILE(S)

Vehicle No.	Person Role	Seat Position	Restraint Use	Most Severe Injury			
				Body Region	Lesion	AIS	Injury Source
1	DRIVER	FRONT LEFT	NONE	RIGHT HAND	CUT	1	UNKNOWN
1	PASSENGER	FRONT RIGHT	NONE	LEFT LEG	BRUISE	1	CONSOLE
2	DRIVER	FRONT LEFT	LAP + SHOULDER	UNKNOWN			
2	PASSENGER	FRONT RIGHT	LAP + SHOULDER	UNKNOWN			

DO NOT SANITIZE THIS FORM



ACCIDENT FORM

U.S. Department of Transportation
National Highway Traffic Safety
Administration

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

NC5F

2. Case Number - Stratum

90-10

IDENTIFICATION

3. Number of General Vehicle
Forms Submitted

02

4. Date of Accident
(Month, Day, Year)

19 9 0

5. Time of Accident

0945

Code reported military time of accident.

NOTE: Midnight = 2400
Unknown = 9999

SPECIAL STUDIES INDICATORS

Check (✓) each special study (SS12-SS16 below) that has been completed; code 1 for the checked special studies and 0 for the special studies not checked.

6. SS12 Not Active

0

7. SS13 AOPS

0

8. SS14

1

9. SS15

1

10. SS16

1

NUMBER OF EVENTS

11. Number of Recorded Events
in This Accident

03

Code the number of events which occurred in
this accident.

ACCIDENT EVENTS

For each event that occurred in the accident, code the lowest numbered vehicle in the left columns and the other involved vehicle or object on the right.

Accident Event Sequence Number	Vehicle Number	Class of Vehicle	General Area of Damage	Vehicle Number or Object Contacted	Class of Vehicle	General Area of Damage
12. 0 1	13. 0 1	14. 0 1	15. R	16. 0 2	17. 0 3	18. F
19. 0 2	20. 0 1	21. 0 1	22. L	23. 6 8	24. _____	25. _____
26. 0 3	27. 0 1	28. 0 1	29. L	30. 5 2	31. _____	32. _____
33. 0 4	34. _____	35. _____	36. _____	37. _____	38. _____	39. _____
40. 0 5	41. _____	42. _____	43. _____	44. _____	45. _____	46. _____

IF GREATER THAN FIVE EVENTS, CONTINUE CODING ON THE ACCIDENT EVENTS SUPPLEMENT

CODES FOR CLASS OF VEHICLE	CODES FOR GENERAL AREA OF DAMAGE (GAD)	
(00) Not a motor vehicle (01) Subcompact/mini (wheelbase = 100") (02) Compact (wheelbase = 100"-104") (03) Intermediate (wheelbase = 105"-109") (04) Full size (wheelbase = 110"-114") (05) Largest (wheelbase = 115") (09) Unknown passenger car size (11) Short utility vehicle (12) Truck based utility (< 10,000 lbs GVWR) (13) Passenger van (< 10,000 lbs GVWR) (14) Other van (< 10,000 lbs GVWR) (15) Pickup truck (< 10,000 lbs GVWR) (18) Other truck (< 10,000 lbs GVWR) (19) Unknown light truck type (20) School bus (21) Other bus (22) Truck (< 10,000 lbs GVWR) (23) Tractor without trailer (24) Tractor-trailer(s) (25) Motored cycle (28) Other vehicle (99) Unknown	CDC APPLICABLE AND OTHER VEHICLES	TDC APPLICABLE VEHICLES
	(0) Not a motor vehicle (N) Noncollision (F) Front (R) Right side (L) Left side (B) Back (T) Top (U) Undercarriage (9) Unknown	(0) Not a motor vehicle (N) Noncollision (F) Front (R) Right side (L) Left side (B) Back of unit with cargo area (rear of trailer or straight truck) (D) Back (rear of tractor) (C) Rear of cab (V) Front of cargo area (T) Top (U) Undercarriage (9) Unknown

CODES FOR VEHICLE NUMBER OR OBJECT CONTACTED	
(01-30) — Vehicle number Noncollision (31) Overturn — rollover (32) Fire or explosion (33) Jackknife (34) Other intraunit damage (specify): _____ (35) Noncollision injury (38) Other noncollision (specify): _____ (39) Noncollision — details unknown Collision with Fixed Object (41) Tree (< 4 inches in diameter) (42) Tree (< 4 inches in diameter) (43) Shrubbery or bush (44) Embankment (45) Breakaway pole or post (any diameter) Nonbreakaway Pole or Post (50) Pole or post (< 4 inches in diameter) (51) Pole or post (< 4 but < 12 inches in diameter) (52) Pole or post (< 12 inches in diameter) (53) Pole or post (diameter unknown) (54) Concrete traffic barrier (55) Impact attenuator (56) Other traffic barrier (specify): _____	(57) Fence (58) Wall (59) Building (60) Ditch or culvert (61) Ground (62) Fire hydrant (63) Curb (64) Bridge (68) Other fixed object (specify): _____ (69) Unknown fixed object Collision with Nonfixed Object (71) Motor vehicle not in-transport (72) Pedestrian (73) Cyclist or cycle (74) Other nonmotorist or conveyance (specify): _____ (75) Vehicle occupant (76) Animal (77) Train (78) Trailer, disconnected in transport (88) Other nonfixed object (specify): _____ (89) Unknown nonfixed object (98) Other event (specify): _____ (99) Unknown event or object



U.S. Department of Transportation
National Highway Traffic Safety
Administration

ACCIDENT COLLISION MEASUREMENT TABLE

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

Primary Sampling Unit Number <u>NC5I</u>		Case Number—Stratum <u>90-10</u>
<p align="center">ACCIDENT COLLISION DIAGRAM</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p align="center">LEVEL I PHYSICAL EVIDENCE ABSENT</p> <p>To be accomplished when there is no physical evidence present at the scene:</p> <ul style="list-style-type: none"> * approximate vehicle orientation at impact and final rest * applicable road/roadway delineation (e.g., curbs/edge lines, lane markings, median markings, pavement markings, etc.) * applicable traffic controls (e.g., speed limit) * north arrow placed on diagram * sketch required </div> <div style="width: 45%;"> <p align="center">LEVEL II (Cont'd) accomplished when physical evidence is present:</p> <ul style="list-style-type: none"> * document reference point and reference line relative to physical features present at the scene * scaled documentation of all accident induced physical evidence * scaled documentation of all roadside objects contacted * roadway surface type and condition of applicable roadways * grade measurements for all applicable roadways * scaled representations of the vehicle(s) at pre-impact, impact, and final rest based upon either: <ul style="list-style-type: none"> a) physical evidence, or b) reconstructed accident dynamics </div> </div>		

CRASH DATA

VEH. #1	VEH. #2	VEH. #3
Heading Angle	<u>175°</u> <u>175°</u>	
Surface Type	<u>ASPHALT</u>	
Surface Condition	<u>GOOD</u>	
Grade Measurement (v/h)	<u>3/4/48 = 1.57%</u>	

[illegible]



U.S. Department of Transportation
National Highway Traffic Safety
Administration

PSU No. NC51

Case Number—Stratum 90-10

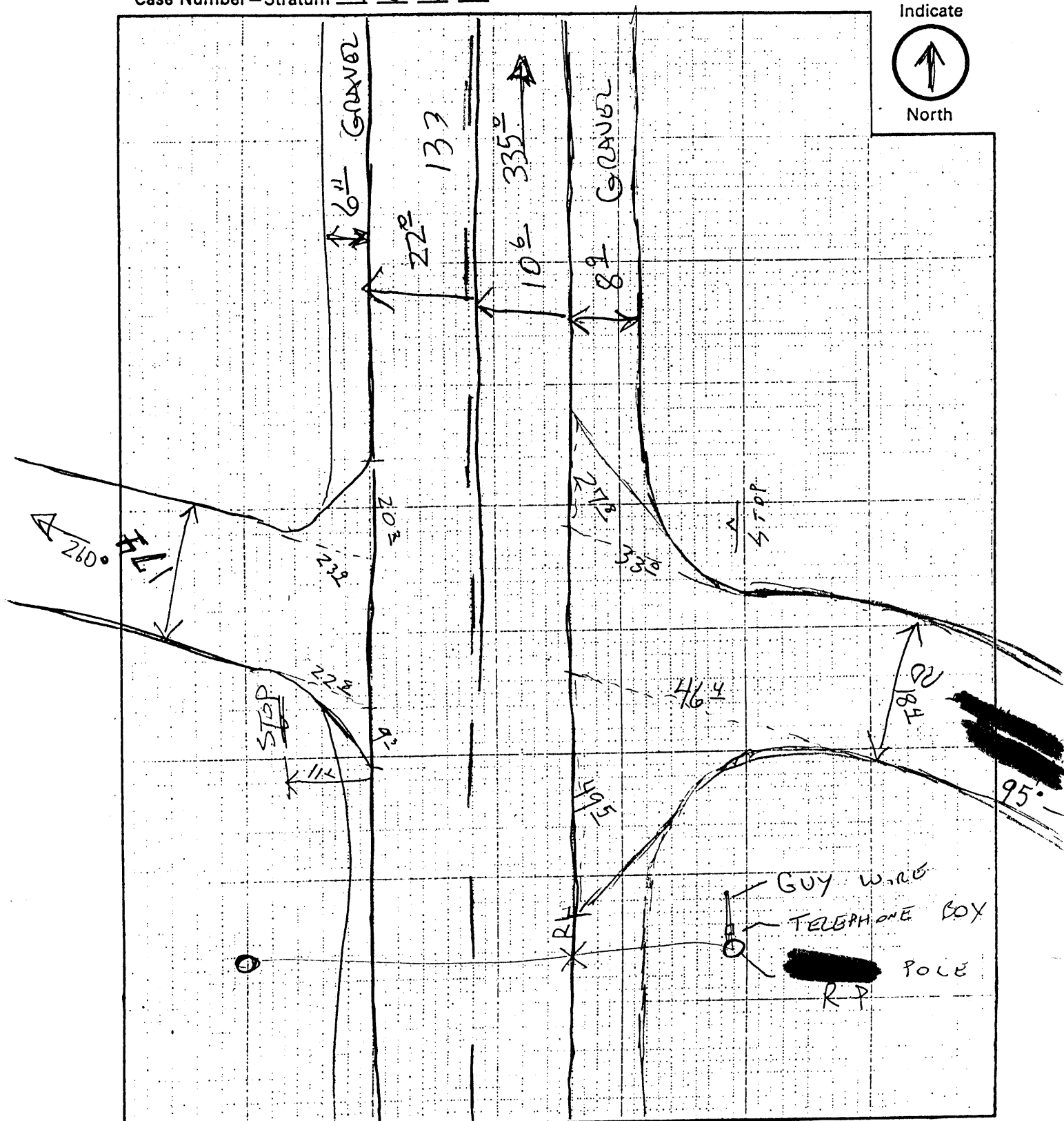
BEST AVAILABLE COPY
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

ACCIDENT COLLISION DIAGRAM

Indicate



North

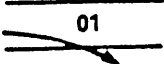

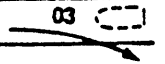
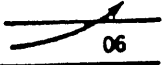
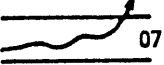
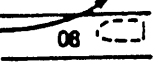
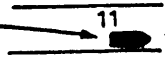
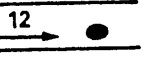

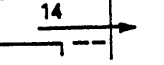
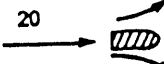
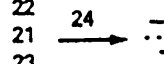
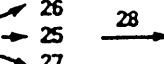
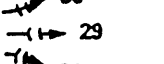
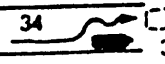


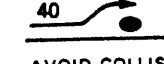
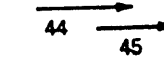

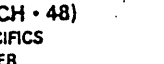

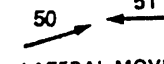

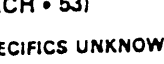



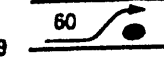
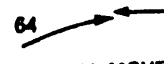
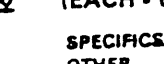
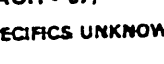

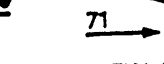

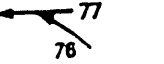

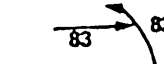


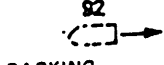





GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number <u>NCST</u>	11. Police Reported Alcohol or Drug Presence <u>0</u> (0) Neither alcohol nor drugs present (1) Yes (alcohol present) (2) Yes (drugs present) (3) Yes (alcohol and drugs present) (4) Yes (alcohol or drugs present—specifics unknown) (7) Not reported (8) No driver present (9) Unknown
2. Case Number—Stratum <u>90-10</u>	
3. Vehicle Number <u>01</u>	
VEHICLE IDENTIFICATION	
4. Vehicle Model Year <u>90</u> Code the last two digits of the model year (99) Unknown	12. Alcohol Test Result for Driver <u>96</u> Code actual value (decimal implied before first digit—0.xx) (95) Test refused (96) None given (97) AC test performed, results unknown (98) No driver present (99) Unknown Source _____
5. Vehicle Make (specify): <u>DODGE</u> Applicable codes are found in your NASS CDS Data Collection, Coding, and Editing Manual. (99) Unknown	
6. Vehicle Model (specify): <u>015</u> <u>DATONA</u> Applicable codes are found in your NASS CDS Data Collection, Coding, and Editing Manual. (999) Unknown	ACCIDENT RELATED
7. Body Type <u>03</u> Note: Applicable codes are found on the back of this page.	13. Speed Limit <u>55</u> (00) No statutory limit Code posted or statutory speed limit (99) Unknown
8. Vehicle Identification Number <u>1B3XG24304</u> Left justify; Slash zeros and letter Z (0 and Z) No VIN—Code all zeros Unknown—Code all nine's	14. Attempted Avoidance Maneuver <u>08</u> (00) No impact (01) No avoidance actions (02) Braking (no lockup) (03) Braking (lockup) (04) Braking (lockup unknown) (05) Releasing brakes (06) Steering left (07) Steering right (08) Braking and steering left (09) Braking and steering right (10) Accelerating (11) Accelerating and steering left (12) Accelerating and steering right (97) No driver present (98) Other action (specify): _____ (99) Unknown
OFFICIAL RECORDS	
9. Police Reported Vehicle Disposition <u>1</u> (0) Not towed due to vehicle damage (1) Towed due to vehicle damage (9) Unknown	15. Accident Type <u>13</u> Applicable codes may be found on the back of page two of this field form (00) No impact Code the number of the diagram that best describes the accident circumstance (98) Other accident type (specify): _____ (99) Unknown
10. Police Reported Travel Speed <u>99</u> Code to the nearest mph (NOTE: 00 means less than 0.5 mph) (97) 96.5 mph and above (99) Unknown	
**** STOP HERE IF GV07 DOES NOT EQUAL 01-49 ****	

Category	Configuration	ACCIDENT TYPES (Includes Intent)				
I Single Driver	A. Right Roadside Departure	 01 DRIVE OFF ROAD	 02 CONTROL/ TRACTION LOSS	 03 AVOID COLLISION WITH VEH., PED., ANIM.	04 SPECIFICS OTHER	05 SPECIFICS UNKNOWN
	B Left Roadside Departure	 06 DRIVE OFF ROAD	 07 CONTROL/ TRACTION LOSS	 08 AVOID COLLISION WITH VEH., PED., ANIM.	09 SPECIFICS OTHER	10 SPECIFICS UNKNOWN
	C. Forward Impact	 11 PARKED VEH.	 12 STA. OBJECT	 13 PEDESTRIAN/ ANIMAL	 14 END DEPARTURE	15 SPECIFICS OTHER 16 SPECIFICS UNKNOWN
II Same Trafficway Same Direction	D Rear-End	 20 STOPPED 21, 22, 23	 22 SLOWER 25, 26, 27	 24 DECEL. 28, 30, 31	 26 AVOID COLLISION WITH VEH.	(EACH • 32) SPECIFICS OTHER (EACH • 33) SPECIFICS UNKNOWN
	E Forward Impact	 34 CONTROL/ TRACTION LOSS	 36 CONTROL/ TRACTION LOSS	 38 AVOID COLLISION WITH VEH.	 40 AVOID COLLISION WITH OBJECT	(EACH • 42) SPECIFICS OTHER (EACH • 43) SPECIFICS UNKNOWN
	F. Sideswipe Angle	 44 45	 46 45 47	 (EACH • 48) SPECIFICS OTHER	 (EACH • 49) SPECIFICS UNKNOWN	
III Same Trafficway Opposite Direction	G. Head-On	 50 LATERAL MOVE	 51 (EACH • 52) SPECIFICS OTHER	 (EACH • 53) SPECIFICS UNKNOWN		
	H Forward Impact	 54 CONTROL/ TRACTION LOSS	 56 CONTROL/ TRACTION LOSS	 58 AVOID COLLISION WITH VEH.	 60 AVOID COLLISION WITH OBJECT	(EACH • 62) SPECIFICS OTHER (EACH • 63) SPECIFICS UNKNOWN
	I. Sideswipe Angle	 64 LATERAL MOVE	 66 (EACH • 66) SPECIFICS OTHER	 (EACH • 67) SPECIFICS UNKNOWN		
IV. Change Trafficway Vehicle Turning	J. Turn Across Path	 68 INITIAL OPPOSITE DIRECTIONS	 70 INITIAL SAME DIRECTIONS	 72 (EACH • 74) (EACH • 75)	SPECIFICS OTHER	SPECIFICS UNKNOWN
	K. Turn Into Path	 77 TURN INTO SAME DIRECTION	 79 TURN INTO OPPOSITE DIRECTIONS	 81 (EACH • 84) (EACH • 85)	SPECIFICS OTHER	SPECIFICS UNKNOWN
V Intersecting Paths (Vehicle Damage)	L. Straight Paths	 86 87	 88 89	(EACH • 90) SPECIFICS OTHER	(EACH • 91) SPECIFICS UNKNOWN	
VI. Miscellaneous	M. Backing Etc.	 92 BACKING VEH.	 93 OTHER VEH. OR OBJECT	98 Other Accident Type 99 Unknown Accident Type 00 No Impact		

National Accident Sampling System—Crashworthiness Data System: General Vehicle Form

Page 2

OCCUPANT RELATED16. Driver Presence in Vehicle 1

- (0) Driver not present
(1) Driver present
(9) Unknown

17. Number of Occupants This Vehicle 02
(00-96) Code actual number of occupants for this vehicle
(97) 97 or more
(99) Unknown18. Number of Occupant Forms Submitted 02**VEHICLE WEIGHT ITEMS**19. Vehicle Curb Weight 02,800
2198 Code weight to nearest 100 pounds.
(010) Less than 1050 pounds
(135) 13,500 lbs or more
(999) Unknown

Source: _____

20. Vehicle Cargo Weight 0000
_____ Code weight to nearest 100 pounds.
(400) Less than 50 pounds
(97) 9,650 lbs or more
(99) Unknown**RECONSTRUCTION DATA**21. Towed Trailing Unit 0
(0) No towed unit
(1) Yes—towed trailing unit
(9) Unknown22. Documentation of Trajectory Data for This Vehicle 1
(0) No
(1) Yes23. Post Collision Condition of Tree or Pole (for Highest Delta V) 2
(0) Not collision (for highest delta V) with tree or pole
(1) Not damaged
(2) Cracked/sheared
(3) Tilted <45 degrees
(4) Tilted ≥45 degrees
(5) Uprooted tree
(6) Separated pole from base
(7) Pole replaced
(8) Other (specify): _____
(9) Unknown24. Rollover 0

- (0) No rollover (no overturning)

Rollover (primarily about the longitudinal axis)

- (1) Rollover, 1 quarter turn only
(2) Rollover, 2 quarter turns
(3) Rollover, 3 quarter turns
(4) Rollover, 4 or more quarter turns (specify): _____

- (5) Rollover—end-over-end (i.e., primarily about the lateral axis)
(9) Rollover (overturn), details unknown

OVERRIDE/UNDERRIDE (THIS VEHICLE)25. Front Override/Underride (this vehicle) 026. Rear Override/Underride (this vehicle) 0

- (0) No override/underride, or not an end-to-end impact

Override (see specific CDC)

- (1) 1st CDC
(2) 2nd CDC
(3) Other not automated CDC (specify): _____

Underride (see specific CDC)

- (4) 1st CDC
(5) 2nd CDC
(6) Other not automated CDC (specify): _____

- (7) Medium/heavy truck override
(9) Unknown

HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values: (000)-(359) Code actual value
(997) Noncollision
(998) Impact with object
(999) Unknown

27. Heading Angle for This Vehicle 99828. Heading Angle for Other Vehicle ---

National Accident Sampling System - Crashworthiness Data System: General Vehicle Form

Page 3

29. Basis for Total Delta V (Highest) 1

Delta V Calculated

- (1) CRASH program - damage only routine
- (2) CRASH program - damage and trajectory routine
- (3) Missing vehicle algorithm

Delta V Not Calculated

- (4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.
- (5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction techniques, regardless of adequacy of damage data.
- (6) All vehicles and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.

COMPUTER GENERATED DELTA V

30. Total Delta V

9.4 Nearest mph

(NOTE: 00 means less than 0.5 mph)
 (97) 96.5 mph and above
 (99) Unknown

31. Longitudinal Component of Delta V

-8.2 Nearest mph

(NOTE: 00 means greater than -0.5 and less than +0.5 mph)
 (± 97) ± 96.5 mph and above
 (— 99) Unknown

32. Lateral Component of Delta V

4.7 Nearest mph

(NOTE: 00 means greater than -0.5 and less than +0.5 mph).
 (± 97) ± 96.5 mph and above
 (— 99) Unknown

33. Energy Absorption

1230.9 Nearest 100 foot-lbs

(NOTE: 0000 means less than 50 Foot-Lbs)
 (9997) 999,650 foot-lbs or more
 (9999) Unknown

34. Confidence in Reconstruction Program Results (for Highest Delta V)

- (0) No reconstruction
- (1) Collision fits model - results appear reasonable
- (2) Collision fits model - results appear high
- (3) Collision fits model - results appear low
- (4) Borderline reconstruction - results appear reasonable

35. Type of Vehicle Inspection

- (0) No inspection
- (1) Complete inspection
- (2) Partial inspection (specify):

36. Is this an AOPS Vehicle?

- (0) No
- (1) Yes

*** STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35 = 0), ***
 DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.



US Department of Transportation
National Highway Traffic Safety
Administration

EXTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number	NCST	3. Vehicle Number	01
2. Case Number - Stratum	90-10		

VEHICLE IDENTIFICATION

VIN	1B3XG2430L	Model Year	1990
Vehicle Make (specify):	DODGE	Vehicle Model (specify):	DAYTONA

LOCATOR

Locate the end of the damage with respect to the vehicle longitudinal center line or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L	Location of Maximum Crush
1	RIGHT SIDE	RIGHT SIDE	C4
3	LEFT SIDE	LEFT SIDE	C3
2	LEFT REAR FENDER	LEFT SIDE	BETWEEN C3 & C4

CRUSH PROFILE

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile.

Specific Impact Number	Plane of C-Measurements	Direct Damage		Field L	C ₁	C ₂	C ₃	C ₄	C ₅	C ₆	±D
		Width (CDC)	Max Crush								
IMPACT WITH VZ	1	LOWER SIDE	90	24	2.8	3.4	4.8	5.0	4.25	1.5	-6.0
		FREE SPACE		5.0	1.4	.4	2.0	2.0	1.75	1.5	
		FINAL			1.4	3.0	2.8	3.0	2.5	0.0	
UTILITY POLE	3	MID SIDE	16	53	.5	.75	8.0	3.6	2.25	5.75	+46.0
		FREE SPACE		8.0	.5	.5	.75	.6	2.3	6.50	
		FINAL		.75	0	.25	7.25	3.0	0	0	
BUY WIRE	2	MID SIDE	6	34	0	.4	2.3	1.8	.5	0	-48.0
		FREE SPACE		3.2	.1	.1	0	0	.1	.1	
		FINAL		0	0	.3	2.3	1.8	.4	0	

HS Form 435A (Rev. 1/90)



BEST AVAILABLE COPY

U.S. Department of Transportation
National Highway Traffic Safety
AdministrationCase Number NC51 90-10
Vehicle Number 01

VEHICLE

DAMAGE DESCRIPTION

Tire—Wheel Damage

a. Rotation physically restricted b. Tire deflated

RF 2
LF 2
RR 2
LR 2RF 2
LF 2
RR 9
LR 2

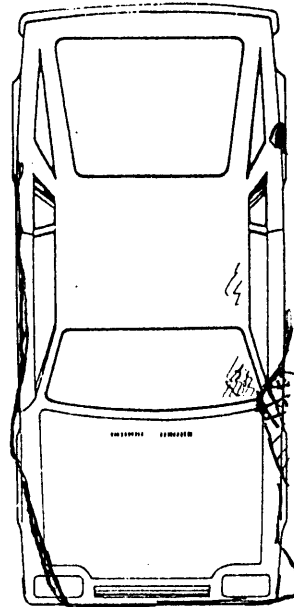
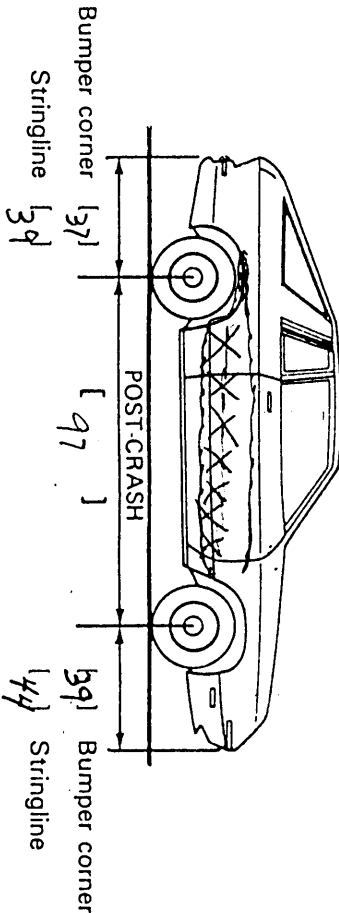
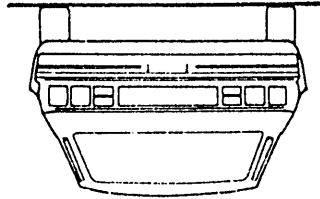
(1) Yes, (2) No, (8) NA, (9) Unk.

TYPE OF TRANSMISSION

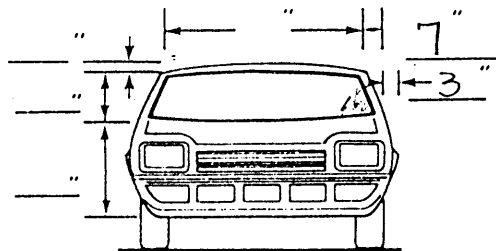
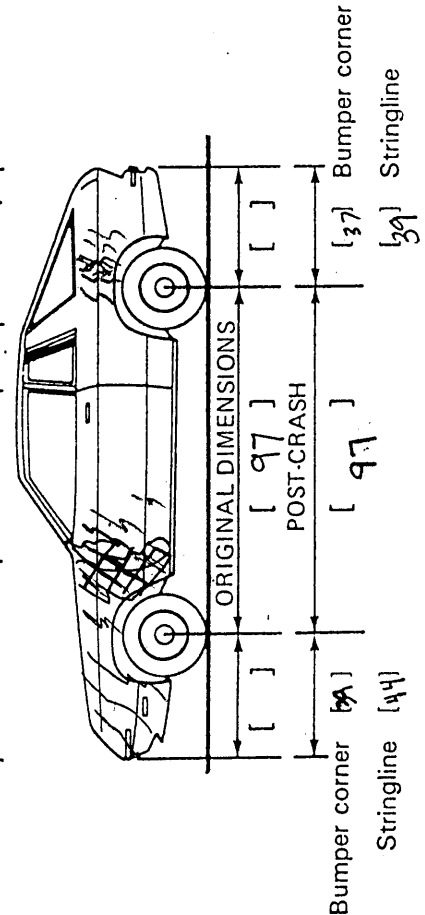
Manual ☒ AutomaticAverage Track: 58.0
Maximum Width: 69.3
Curb Weight: 2798
Overall Length: 179.2
Wheel Base: 97
Engine Size: cyl. V6
displ. 3.0L

WHEEL STEER ANGLES

(For locked front wheels or displaced rear axles only)

RF \pm 0.0°LF \pm °RR \pm °LR \pm °Within \pm 5 degrees

A-PILLAR CRUSHED REARWARD 2"



Note: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire head, direction of striations, scuff on sidewall, etc.) If pulling trailer sketch type of trailer and damage received on the back of this page. Annotate any damage caused by extrication such as component removal by torching, prying or hydraulic shears. If the vehicle contacted a pedestrian, complete page 6H.

CDC WORKSHEET

CODES FOR OBJECT CONTACTED

01-30—Vehicle Number

Noncollision

- (31) Overturn—rollover
 (32) Fire or explosion
 (33) Jackknife
 (34) Other intraunit damage (specify):

- (35) Noncollision injury
 (38) Other noncollision (specify):

(39) Noncollision—details unknown

Collision with Fixed Object

- (41) Tree (≤ 4 inches in diameter)
 (42) Tree (> 4 inches in diameter)
 (43) Shrubbery or bush
 (44) Embankment

(45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post

- (50) Pole or post (≤ 4 inches in diameter)
 (51) Pole or post (> 4 but ≤ 12 inches in diameter)
 (52) Pole or post (> 12 inches in diameter)
 (53) Pole or post (diameter unknown)

- (54) Concrete traffic barrier
 (55) Impact attenuator
 (56) Other traffic barrier (specify):

- (57) Fence
 (58) Wall
 (59) Building
 (60) Ditch or Culvert
 (61) Ground
 (62) Fire hydrant
 (63) Curb
 (64) Bridge
 (68) Other fixed object (specify):
GUY WIRE

(69) Unknown fixed object

Collision With Nonfixed Object

- (71) Motor vehicle not in transport
 (72) Pedestrian
 (73) Cyclist or cycle
 (74) Other nonmotorist or conveyance (specify):

- (75) Vehicle occupant
 (76) Animal
 (77) Train
 (78) Trailer, disconnected in transport
 (88) Other nonfixed object (specify):

(89) Unknown nonfixed object

(98) Other event (specify):

(99) Unknown event or object

DEFORMATION CLASSIFICATION BY EVENT NUMBER

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force (degrees)	Incremental Value of Shift	(3) Deformation Location	(4) Specific Longitudinal or Lateral Location	(5) Specific Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
<u>01</u>	<u>02</u>	<u>20</u>	<u>00</u>	<u>R</u>	<u>Z</u>	<u>E</u>	<u>W</u>	<u>02</u>
<u>02</u>	<u>68</u>	<u>300</u>	<u>00</u>	<u>L</u>	<u>B</u>	<u>E</u>	<u>N</u>	<u>01</u>
<u>03</u>	<u>52</u>	<u>320</u>	<u>00</u>	<u>L</u>	<u>Y</u>	<u>A</u>	<u>W</u>	<u>02</u>
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---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---
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National Accident Sampling System – Crashworthiness Data System: Exterior Vehicle Form

Page 4

COLLISION DEFORMATION CLASSIFICATION

HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Specific Longitudinal or Lateral Location	(5) Specific Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. <u>03</u>	5. <u>52</u>	6. <u>11</u>	7. <u>L</u>	8. <u>Y</u>	9. <u>A</u>	10. <u>W</u>	11. <u>02</u>

Second Highest Delta "V"

12. <u>01</u>	13. <u>02</u>	14. <u>01</u>	15. <u>R</u>	16. <u>Z</u>	17. <u>E</u>	18. <u>W</u>	19. <u>02</u>
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CRUSH PROFILE

(The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. ALL MEASUREMENTS ARE IN INCHES.)

HIGHEST DELTA "V"

20. L	21. C1	C2	C3	C4	C5	C6	22. - - D
<u>096</u>	<u>00</u>	<u>00</u>	<u>07</u>	<u>03</u>	<u>00</u>	<u>00</u>	<u>46</u>

Second Highest Delta "V"

23. L	24. C1	C2	C3	C4	C5	C6	25. + - D
<u>090</u>	<u>01</u>	<u>03</u>	<u>03</u>	<u>03</u>	<u>03</u>	<u>00</u>	<u>006</u>

26. Are CDCs Documented
but Not Coded on The
Automated File
(0) No
(1) Yes

1

27. Researcher's Assessment
of Vehicle Disposition
(0) Not towed due to
vehicle damage
(1) Towed due to
vehicle damage
(9) Unknown

1

28. Original Wheelbase
Code to the
nearest
tenth of an inch
(9999) Unknown

97.0

*** STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED ***
(I.E., GV09 = 0 OR 9), DO NOT COMPLETE THE INTERIOR VEHICLE FORM.



U.S. Department of Transportation
National Highway Traffic Safety
Administration

INTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

NC5I

2. Case Number—Stratum

90-10

3. Vehicle Number

01

INTEGRITY

4. Passenger Compartment Integrity

00

(00) No integrity loss

Yes, Integrity Was Lost Through

(01) Windshield

(02) Door (side)

(03) Door/hatch (rear)

(04) Roof

(05) Roof glass

(06) Side window

(07) Rear window

(08) Roof and roof glass

(09) Windshield and door (side)

(10) Windshield and roof

(11) Side and rear window

(12) Windshield and side window

(13) Door and side window

(98) Other combination of above (specify):

(99) Unknown

Door, Tailgate Or Hatch Opening

5. LF 3 6. RF 3 7. LR 0 8. RR 0 9. TG/H 1

(0) No door/gate/hatch

(1) Door/gate/hatch remained closed and operational

(2) Door/gate/hatch came open during collision

(3) Door/gate/hatch jammed shut

(8) Other (specify):

(9) Unknown

Damage/Failure Associated with Door, Tailgate or Hatch Opening in Collision. If IV05-IV09 ≠ 2, Then Code 0.

10. LF 0 11. RF 0 12. LR 0 13. RR 0 14. TG/H 0

(0) No door/gate/hatch or door not opened

Door, Tailgate, or Hatch Came Open During Collision

(1) Door operational (no damage)

(2) Latch/striker failure due to damage

(3) Hinge failure due to damage

(4) Door structure failure due to damage

(5) Door support (i.e., pillar, sill, roof side rail, etc.) failure due to damage

(6) Latch/striker and hinge failure due to damage

(8) Other failure (specify):

(9) Unknown

GLAZING

Glazing Damage from Impact Forces

15. WS 2 16. LF 0 17. RF 0 18. LR 0 19. RR 0

20. BL 0 21. Roof 0 22. Other —

(0) No glazing damage from impact forces

(2) Glazing in place and cracked from impact forces

(3) Glazing in place and holed from impact forces

(4) Glazing out-of-place (cracked or not) and not holed from impact forces

(5) Glazing out-of-place and holed from impact forces

(6) Glazing disintegrated from impact forces

(7) Glazing removed prior to accident

(8) No glazing

(9) Unknown if damaged

Glazing Damage from Occupant Contact

23. WS 2 24. LF 0 25. RF 0 26. LR 0 27. RR 0

28. BL 0 29. Roof 0 30. Other —

(0) No occupant contact to glazing or no glazing

(1) Glazing contacted by occupant but no glazing damage

(2) Glazing in place and cracked by occupant contact

(3) Glazing in place and holed by occupant contact

(4) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact

(5) Glazing out-of-place by occupant contact and holed by occupant contact

(6) Glazing disintegrated by occupant contact

(9) Unknown if contacted by occupant

If No Glazing Damage And No Occupant Contact or No Glazing, Then Code IV 31 Through IV 46 As 0

Type of Window/Windshield Glazing

31. WS 1 32. LF 0 33. RF 0 34. LR 0 35. RR 0

36. BL 0 37. Roof 0 38. Other —

(0) No glazing contact and no damage, or no glazing

(1) AS-1 — Laminated

(2) AS-2 — Tempered

(3) AS-3 — Tempered-tinted

(4) AS-14 — Glass/Plastic

(8) Other (specify):

(9) Unknown

Window Precrash Glazing Status

39. WS 1 40. LF 0 41. RF 0 42. LR 0 43. RR 0

44. BL 0 45. Roof 0 46. Other —

(0) No glazing contact and no damage, or no glazing

(1) Fixed

(2) Closed

(3) Partially opened

(4) Fully opened

(9) Unknown

INTRUSION WORK SHEET

TOP VIEW

Longitudinal

Lateral

Longitudinal

LEFT SIDE VIEW

Vertical

Longitudinal

Longitudinal

RIGHT SIDE VIEW

Vertical

Longitudinal

Longitudinal

Vertical

Note: Sketch intruded areas

LOCATION OF INTRUSION	INTRUDED COMPONENT	COMPARISON VALUE	-	INTRUDED VALUE	=	INTRUSION	DOMINANT CRUSH DIRECTION
LF	A-PILLAR		-		=	2"	LONG / LAT
LF	DASH		-		=	1"	LONG
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		

Document no more than the 15 most severe intrusions

OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV 47-IV 86 blank.

	Location of Intrusion	Intruding Component	Magnitude of Intrusion	Dominant Crush Direction
1st	47. <u>1</u> <u>1</u>	48. <u>0</u> <u>6</u>	49. <u>1</u>	50. <u>2</u>
2nd	51. <u>1</u> <u>1</u>	52. <u>0</u> <u>2</u>	53. <u>1</u>	54. <u>2</u>
3rd	55. _____	56. _____	57. _____	58. _____
4th	59. _____	60. _____	61. _____	62. _____
5th	63. _____	64. _____	65. _____	66. _____
6th	67. _____	68. _____	69. _____	70. _____
7th	71. _____	72. _____	73. _____	74. _____
8th	75. _____	76. _____	77. _____	78. _____
9th	79. _____	80. _____	81. _____	82. _____
10th	83. _____	84. _____	85. _____	86. _____

LOCATION OF INTRUSION

Front Seat	Fourth Seat
(11) Left	(41) Left
(12) Middle	(42) Middle
(13) Right	(43) Right
Second Seat	(97) Catastrophic
(21) Left	(98) Other enclosed area (specify): _____
(22) Middle	
(23) Right	
Third Seat	(99) Unknown
(31) Left	
(32) Middle	
(33) Right	

INTRUDING COMPONENT**Interior Components**

- (01) Steering assembly
- (02) Instrument panel left
- (03) Instrument panel center
- (04) Instrument panel right
- (05) Toe pan
- (06) A-pillar
- (07) B-pillar
- (08) C-pillar
- (09) D-pillar
- (10) Door panel
- (12) Roof (or convertible top)
- (13) Roof side rail
- (14) Windshield
- (15) Windshield header
- (16) Window frame
- (17) Floor pan
- (18) Backlight header
- (19) Front seat back
- (20) Second seat back
- (21) Third seat back
- (22) Fourth seat back
- (23) Fifth seat back
- (24) Seat cushion
- (25) Back panel or door surface
- (26) Other interior component (specify): _____

- (27) Side panel - forward of the A-pillar
- (28) Side panel - rear of the A-pillar

Exterior Components

- (30) Hood
- (31) Outside surface of vehicle (specify): _____
- (32) Other exterior object in the environment (specify): _____
- (33) Unknown exterior object
- (97) Catastrophic
- (98) Intrusion of unlisted component(s) (specify): _____
- (99) Unknown

MAGNITUDE OF INTRUSION

- (1) ≥ 1 inch but < 3 inches
- (2) ≥ 3 inches but < 6 inches
- (3) ≥ 6 inches but < 12 inches
- (4) ≥ 12 inches but < 18 inches
- (5) ≥ 18 inches but < 24 inches
- (6) ≥ 24 inches
- (7) Catastrophic
- (9) Unknown

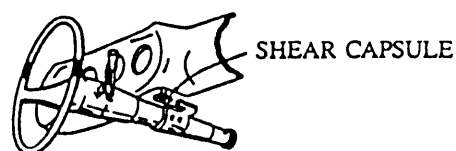
DOMINANT CRUSH DIRECTION

- (1) Vertical
- (2) Longitudinal
- (3) Lateral
- (7) Catastrophic
- (9) Unknown

STEERING COLUMN WORKING DIAGRAMS

STEERING COLUMN COLLAPSE

Steering Column Shear Module Movement

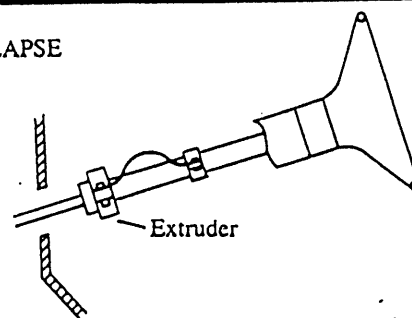


SHEAR CAPSULE



Left — Right — V = —"

Direction and Magnitude of Steering Column Movement



Extruder

After Compression

Flare Tube

Possible Remaining Starter Grooves At 6 and 12 o'clock

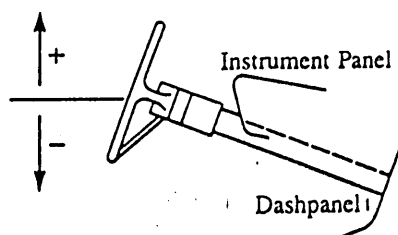
Extruder

Compression = Measurement A

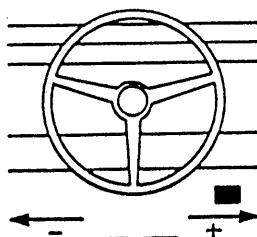
A = —

STEERING COLUMN MOVEMENT

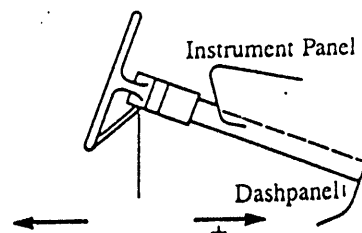
Vertical Movement



Lateral Movement



Longitudinal Movement



	COMPARISON VALUE	—	DAMAGED VALUE	=	MOVEMENT
VERTICAL		—		=	
LATERAL		—		=	
LONGITUDINAL		—		=	

STEERING RIM/SPOKE DEFORMATION

COMPARISON VALUE	—	DAMAGED VALUE	=	DEFORMATION
	—		=	
	—		=	

STEERING COLUMN**87. Steering Column Type** 2

- (1) Fixed column
 (2) Tilt column
 (3) Telescoping column
 (4) Tilt and telescoping column
 (8) Other column type (specify):

(9) Unknown

If PDOF \neq 11, 12 or 1, Then Code IV88-IV91 As 96**88. Steering Column Collapse Due to Occupant Loading** 00

_____ Code actual measured movement to the nearest inch. See coding manual for measurement technique(s).

- (00) No movement, compression, or collapse
 (01-19) Actual measured value
 (20) 20 inches or greater

Estimated movement from observation

- (81) Less than 1 inch
 (82) ≥ 1 inch but < 2 inches
 (83) ≥ 2 inches but < 4 inches
 (84) ≥ 4 inches but < 6 inches
 (85) ≥ 6 inches but < 8 inches
 (86) Greater than or equal to 8 inches
 (96) Not assessed (PDOF \neq 11, 12, 1)
 (97) Apparent movement, value undetermined or cannot be measured or estimated
 (98) Nonspecified type column
 (99) Unknown

Direction And Magnitude of Steering Column Movement**89. Vertical Movement** + 00**90. Lateral Movement** - 00**91. Longitudinal Movement** - 00

Code the actual measured movement to the nearest inch. See Coding Manual for measurement technique(s)

- (00) No steering column movement
 ($\pm 01 - \pm 49$) Actual measured value
 (± 50) 50 inches or greater

Estimated movement from observation

- (± 81) ≥ 1 inch but < 3 inches
 (± 82) ≥ 3 inches but < 6 inches
 (± 83) ≥ 6 inches but < 12 inches
 (± 84) ≥ 12 inches
 (96) Not assessed (PDOF \neq 11, 12, 1)
 (97) Apparent movement > 1 inch but cannot be measured or estimated
 (99) Unknown

92. Steering Rim/Spoke Deformation 0

_____ Code actual measured deformation to the nearest inch.

- (0) No steering rim deformation
 (1-5) Actual measured value
 (6) 6 inches or more
 (8) Observed deformation cannot be measured
 (9) Unknown

93. Location of Steering Rim/Spoke Deformation 00

(00) No steering rim deformation

Quarter Sections

- (01) Section A
 (02) Section B
 (03) Section C
 (04) Section D



Half Sections

- (05) Upper half of rim/spoke
 (06) Lower half of rim/spoke
 (07) Left half of rim/spoke
 (08) Right half of rim/spoke



- (09) Complete steering wheel collapse
 (10) Undetermined location
 (99) Unknown

INSTRUMENT PANEL**94. Odometer Reading** 009,000

9416 miles—Code mileage to the nearest 1,000 miles

- (000) No odometer
 (001) Less than 1,500 miles
 (300) 299,500 miles or more
 (999) Unknown

Source: _____

95. Instrument Panel Damage from Occupant Contact? 1

- (0) No
 (1) Yes
 (9) Unknown

96. Knee Bolsters Deformed from Occupant Contact? 0

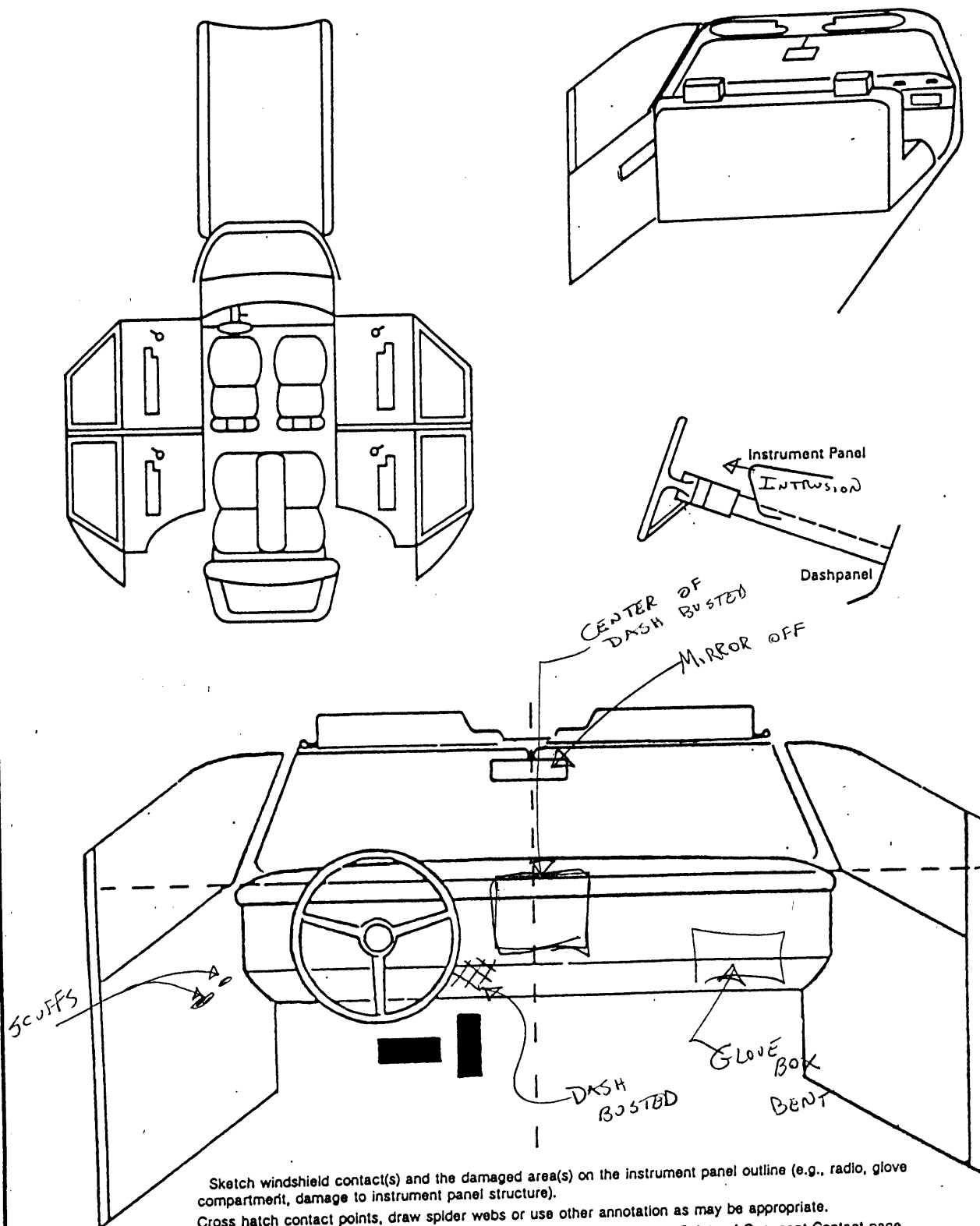
- (0) No
 (1) Yes
 (8) Not present
 (9) Unknown

97. Did Glove Compartment Door Open During Collision(s)? 1

- (0) No
 (1) Yes
 (8) Not present
 (9) Unknown

VEHICLE INTERIOR SKETCHES

Note area of ejection/entrapment



POINTS OF OCCUPANT CONTACT

Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	20	1		SCUFF	3
B	09	1		DASH INDENTED	2
C	10	2		DASH BROKEN APART	1
D	14	2		MIRROR BROKEN OFF	1
E	12	2		GLOVE BOX BENT	2
F					
G					
H					
I					
J					
K					
L					
M					
N					

CODES FOR INTERIOR COMPONENTS

FRONT

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column; transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A-pillar, instrument panel, or mirror (passenger side only)
- (16) Other front object (specify): _____

LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A pillar
- (23) Left B pillar
- (24) Other left pillar (specify): _____
- (25) Left side window glass or frame

- (26) Left side window glass including one or more of the following: frame, window sill, A-pillar, B-pillar, or roof side rail
- (27) Other left side object (specify): _____

RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A pillar
- (33) Right B pillar
- (34) Other right pillar (specify): _____
- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A-pillar, B-pillar, or roof side rail
- (37) Other right side object (specify): _____

INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar attachment point
- (43) Other restraint system component (specify): _____
- (44) Head restraint system
- (45) Air bag
- (46) Other occupants (specify): _____
- (47) Interior loose objects

- (48) Child safety seat (specify): _____

- (49) Other interior object (specify): _____

ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR

- (56) Floor including toe pan
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR

- (60) Backlight (rear window)
- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify): _____

CONFIDENCE LEVEL OF CONTACT POINT

- (1) Certain
- (2) Probable
- (3) Possible
- (4) Unknown

MANUAL RESTRAINTS

NOTES: Encode the applicable data for each seat position in the vehicle. The attributes for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

If a child safety seat is present, encode the data on the back of this page.

If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous page.

		Left	Center	Right
F I R S T	Availability	4	0	4
	Use	00	00	00
	Failure Modes	0	0	0
S E C O N D	Availability	4	0	4
	Use	00	00	00
	Failure Modes	0	0	0
T H I R D	Availability			
	Use			
	Failure Modes			
O T H E R	Availability			
	Use			
	Failure Modes			

Manual (Active) Belt System Availability

- (0) Not available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available — type unknown
- (8) Other belt (specify):

(9) Unknown

Manual (Active) Belt System Use

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify):

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used — type unknown

(08) Other belt used (specify):

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat — type unknown
- (18) Other belt used with child safety seat (specify):

(99) Unknown if belt used

Manual (Active) Belt Failure Modes During Accident

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

- (6) Broken retractor
- (7) Combination of above (specify):

(8) Other manual belt failure (specify):

(9) Unknown

CHILD SAFETY SEAT FIELD ASSESSMENT

When a child safety seat is present enter the occupant's number in the first row and complete the column below the occupant's number using the codes listed below. Complete a column for each child safety seat present.

Occupant Number						
1. Type of Child Safety Seat						
2. Child Safety Seat Orientation						
3. Child Safety Seat Harness Usage						
4. Child Safety Seat Shield Usage						
5. Child Safety Seat Tether Usage						
6. Child Safety Seat Make/Model	Specify Below for Each Child Safety Seat					

1. Type of Child Safety Seat

- (0) No child safety seat
 (1) Infant seat
 (2) Toddler seat
 (3) Convertible seat
 (4) Booster seat
 (7) Other type child safety seat (specify):

- _____
 (8) Unknown child safety seat type
 (9) Unknown if child safety seat used

2. Child Safety Seat Orientation

- (00) No child safety seat
 Designed for Rear Facing for This Age/Weight
 (01) Rear facing
 (02) Forward facing
 (03) Other orientation (specify):
- _____
 (04) Unknown orientation
 Designed for Forward Facing for This Age/Weight
 (11) Rear facing
 (12) Forward facing
 (18) Other orientation (specify):

- _____
 (19) Unknown orientation

- Unknown Design or Orientation for This Age/Weight, or Unknown Age/Weight
 (21) Rear facing
 (22) Forward facing
 (28) Other orientation (specify):

- _____
 (29) Unknown orientation

- (99) Unknown if child safety seat used

3. Child Safety Seat Harness Usage

4. Child Safety Seat Shield Usage

5. Child Safety Seat Tether Usage

Note: Options Below Are Used for Variables 3-5.

- (00) No child safety seat
 Not Designed with Harness/Shield/Tether
 (01) After market harness/shield/tether added, not used
 (02) After market harness/shield/tether used
 (03) Child safety seat used, but no after market harness/shield/tether added
 (09) Unknown if harness/shield/tether added or used
 Designed with Harness/Shield/Tether
 (11) Harness/shield/tether not used
 (12) Harness/shield/tether used
 (19) Unknown if harness/shield/tether used
 Unknown if Designed with Harness/Shield/Tether
 (21) Harness/shield/tether not used
 (22) Harness/shield/tether used
 (29) Unknown if harness/shield/tether used
 (99) Unknown if child safety seat used

6. Child Safety Seat Make/Model
(Specify make/model and occupant number)

HEAD RESTRAINTS/SEAT EVALUATION

NOTES: Encode the applicable data for each seat position in the vehicle. The attributes for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
FIRST	Head Restraint Type/Damage	3	0	3
	Seat Type	02		02
	Seat Performance	1		1
SECOND	Head Restraint Type/Damage	0	0	0
	Seat Type	02		02
	Seat Performance	1		1
THIRD	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
OTHER	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			

Head Restraint Type/Damage by Occupant at This Occupant Position

- (0) No head restraints
- (1) Integral — no damage
- (2) Integral — damaged during accident
- (3) Adjustable — no damage
- (4) Adjustable — damaged during accident
- (5) Add-on — no damage
- (6) Add-on — damaged during accident
- (8) Other (specify): _____
- (9) Unknown

Seat Type (This Occupant Position)

- (00) No seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., van type)
- (09) Other seat type (specify): _____
- (99) Unknown

Seat Performance (This Occupant Position)

- (0) No seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks failed
- (4) Seat tracks/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): _____

- (7) Combination of above (specify): _____
- (8) Other (specify): _____
- (9) Unknown

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE (I.E. UNUSUAL OCCUPANT CONTACT PATTERN)

EJECTION/ENTRAPMENT DATA

Complete the following if the researcher has any indications that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occupant Assessment Form.

EJECTION No ☒ Yes ☐

Describe indications of ejection and body parts involved in partial ejection(s):

Occupant Number						
Ejection						
(Note on Vehicle Interior Sketch) Ejection Area						
Ejection Medium						
Medium Status						

Ejection

- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

Ejection Area

- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear

(7) Roof

- (8) Other area (e.g., back of pickup, etc.) (specify):

(9) Unknown**Ejection Medium**

- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify):

(5) Integral structure

- (8) Other medium (specify):

(9) Unknown**Medium Status (Immediately Prior to Impact)**

- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

ENTRAPMENT No ☒ Yes ☐

Describe entrapment mechanism: _____

Component(s): _____

(Note in vehicle interior diagram)



OCCUPANT ASSESSMENT FORM

<p>1. Primary Sampling Unit Number <u>NCSI</u></p> <p>2. Case Number—Stratum <u>90-10</u></p> <p>3. Vehicle Number <u>01</u></p> <p>4. Occupant Number <u>01</u></p>	<p>11. Occupant's Posture <u>0</u></p> <p>(0) Normal posture</p> <p>(1) Abnormal posture (specify): _____</p> <p>(9) Unknown</p>
OCCUPANT'S CHARACTERISTICS	
<p>5. Occupant's Age <u>17</u></p> <p>Code actual age at time of accident.</p> <p>(00) Less than one year old (specify by month): _____</p> <p>(97) 97 years and older</p> <p>(99) Unknown</p> <p>6. Occupant's Sex <u>1</u></p> <p>(1) Male</p> <p>(2) Female</p> <p>(9) Unknown</p> <p>7. Occupant's Height <u>62</u> <u>74</u></p> <p>Code actual height to the nearest inch.</p> <p>(99) Unknown</p> <p>8. Occupant's Weight <u>186</u> <u>186</u></p> <p>Code actual weight to the nearest pound.</p> <p>(999) Unknown</p> <p>9. Occupant's Role <u>1</u></p> <p>(1) Driver</p> <p>(2) Passenger</p> <p>(9) Unknown</p> <p>10. Occupant's Seat Position <u>11</u></p> <p>Front Seat</p> <p>(11) Left side</p> <p>(12) Middle</p> <p>(13) Right side</p> <p>(14) Other (specify): _____</p> <p>Second Seat</p> <p>(21) Left side</p> <p>(22) Middle</p> <p>(23) Right side</p> <p>(24) Other (specify): _____</p> <p>Third Seat</p> <p>(31) Left side</p> <p>(32) Middle</p> <p>(33) Right side</p> <p>(34) Other (specify): _____</p> <p>Fourth Seat</p> <p>(41) Left side</p> <p>(42) Middle</p> <p>(43) Right side</p> <p>(44) Other (specify): _____</p> <p>(97) In or on unenclosed area</p> <p>(98) Other seat (specify): _____</p> <p>(99) Unknown</p>	<p style="text-align: center; background-color: black; color: white; font-weight: bold;">EJECTION/ENTRAPMENT</p> <p>12. Ejection <u>0</u></p> <p>(0) No ejection</p> <p>(1) Complete ejection</p> <p>(2) Partial ejection</p> <p>(3) Ejection, unknown degree</p> <p>(9) Unknown</p> <p>13. Ejection Area <u>0</u></p> <p>(0) No ejection</p> <p>(1) Windshield</p> <p>(2) Left front</p> <p>(3) Right front</p> <p>(4) Left rear</p> <p>(5) Right rear</p> <p>(6) Rear</p> <p>(7) Roof</p> <p>(8) Other area (e.g., back of pickup, etc.)</p> <p>(specify): _____</p> <p>(9) Unknown</p> <p>14. Ejection Medium <u>0</u></p> <p>(0) No ejection</p> <p>(1) Door/hatch/tailgate</p> <p>(2) Nonfixed roof structure</p> <p>(3) Fixed glazing</p> <p>(4) Nonfixed glazing (specify): _____</p> <p>(5) Integral structure</p> <p>(8) Other medium (specify): _____</p> <p>(9) Unknown</p> <p>15. Medium Status (Immediately Prior to Impact) <u>0</u></p> <p>(0) No ejection</p> <p>(1) Open</p> <p>(2) Closed</p> <p>(3) Integral structure</p> <p>(9) Unknown</p> <p>16. Entrapment <u>0</u></p> <p>(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)</p> <p>(0) Not entrapped</p> <p>(1) Entrapped</p> <p>(9) Unknown</p> <p style="text-align: right; margin-right: 50px;"><i>Doors Jammed</i></p>

RESTRAINT SYSTEM AND SEAT EVALUATION**17. Manual (Active) Belt System Availability** 4

- (0) Not available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown
- (8) Other belt (specify): _____

(9) Unknown

18. Manual (Active) Belt System Use 00

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify): _____

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used—type unknown
- (08) Other belt used (specify): _____

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat—type unknown
- (18) Other belt used with child safety seat (specify): _____

(99) Unknown if belt used

19. Proper Use of Manual (Active) Belts 0

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____

(8) Other improper use of manual belt system (specify): _____

(9) Unknown

20. Manual (Active) Belt Failure Modes During Accident 0

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____

- (6) Broken retractor
- (7) Combination of above (specify): _____

(8) Other manual belt failure (specify): _____

(9) Unknown

21. Automatic (Passive) Restraint System Availability 1

- (0) Not equipped/not available
- (1) Airbag
- (2) Airbag disconnected (specify): _____

- (3) Airbag not reinstalled
- (4) 2 point automatic belts
- (5) 3 point automatic belts
- (6) Automatic belts destroyed or rendered inoperative
- (9) Unknown

22. Automatic (Passive) Restraint Function 4

- (0) Not equipped/not available

Automatic Belt

- (1) Automatic belt in use
- (2) Automatic belt not in use
- (3) Automatic belt use unknown

Air Bag

- (4) Airbag deployed during accident
- (5) Airbag deployed inadvertently just prior to accident
- (6) Deployed, accident sequence undetermined
- (7) Nondeployed
- (8) Unknown if deployed
- (9) Unknown

23. Did Automatic (Passive) Restraint Fail? 1

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify): _____

(9) Unknown

24. Police Reported Restraint Use 1

- (0) None used
- (1) Police did not indicate restraint use
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt used, type not specified
- (6) Child safety seat
- (7) Other or automatic restraint (specify): _____

- (8) Restrained, type unknown
- (9) Police indicated "unknown"

25. Head Restraint Type/Damage by Occupant at This Occupant Position 3

- (0) No head restraints
- (1) Integral—no damage
- (2) Integral—damaged during accident
- (3) Adjustable—no damage
- (4) Adjustable—damaged during accident
- (5) Add-on—no damage
- (6) Add-on—damaged during accident
- (8) Other (specify): _____

(9) Unknown

26. Seat Type (This Occupant Position) 02

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., van type)
- (09) Other seat type (specify):

(99) Unknown

27. Seat Performance (This Occupant Position) 1

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks failed
- (4) Seat track/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify):

(7) Combination of above (specify):

(8) Other (specify):

(9) Unknown

CHILD SAFETY SEAT28. Child Safety Seat Make/Model 000

- (000) No child safety seat
- Applicable codes are found in your NASS CDS Data Collection, Coding, and Editing Manual
- (997) Other make/model (specify):

(998) Unknown make/model

(999) Unknown if child safety seat used

29. Type of Child Safety Seat 0

- (0) No child safety seat
- (1) Infant seat
- (2) Toddler seat
- (3) Convertible seat
- (4) Booster seat
- (7) Other type child safety seat (specify):

(8) Unknown child safety seat type

(9) Unknown if child safety seat used

30. Child Safety Seat Orientation 00

- (00) No child safety seat

Designed for Rear Facing for This Age/Weight

- (01) Rear facing
- (02) Forward facing
- (08) Other orientation (specify):

(09) Unknown orientation

Designed for Forward Facing for This Age/Weight

- (11) Rear facing
- (12) Forward facing
- (18) Other orientation (specify):

(19) Unknown orientation

Unknown Design or Orientation for This Age/Weight, or Unknown Age/Weight

- (21) Rear facing
- (22) Forward facing
- (28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

31. Child Safety Seat Harness Usage 0032. Child Safety Seat Shield Usage 0033. Child Safety Seat Tether Usage 00

Note: Options below applicable to Variables OA31-OA33.

- (00) No child safety seat

Not Designed with
Harness/Shield/Tether

- (01) After market harness/shield/tether added, not used
- (02) After market harness/shield/tether used
- (03) Child safety seat used, but no after market harness/shield/tether added
- (09) Unknown if harness/shield/tether added or used

Designed with Harness/Shield/Tether

- (11) Harness/shield/tether not used
- (12) Harness/shield/tether used
- (19) Unknown if harness/shield/tether used

Unknown If Designed with Harness/Shield/Tether

- (21) Harness/shield/tether not used
- (22) Harness/shield/tether used
- (29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES**34. Injury Severity (Police Rating)**0

- (0) O—No injury
- (1) C—Possible injury
- (2) B—Nonincapacitating injury
- (3) A—Incapacitating injury
- (4) K—Killed
- (5) U—Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

35. Treatment—Mortality0

- (0) No treatment
- (1) Fatal
- (2) Fatal—ruled disease
- Nonfatal
- (3) Hospitalized
- (4) Transported and released
- (5) Treatment at scene—nontransported
- (6) Treatment later
- (8) Treatment—other (specify):

(9) Unknown

36. Type of Medical Facility (for Initial Treatment)0

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):

(9) Unknown

37. Hospital stay00

- Code number of days (up through 60) that the occupant stayed in the hospital
- (00) Not hospitalized
 - (61) 61 days or more
 - (99) Unknown

38. Working Days Lost00

- Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
 - (61) 61 days or more
 - (62) Fatally injured
 - (97) Not working prior to accident
 - (99) Unknown

39. Time to Death00

- Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)
- (00) Not fatal
 - (96) Fatal—ruled disease
 - (99) Unknown

40. 1st Medically Reported Cause of Death00**41. 2nd Medically Reported Cause of Death**00**42. 3rd Medically Reported Cause of Death**00

- Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
- (00) Not fatal or no additional causes
 - (97) Other result (specify):

(99) Unknown

43. Number of Recorded Injuries for This Occupant01

- Code the actual number of injuries recorded for this occupant.
- (00) No recorded injuries
 - (97) Injured, details unknown
 - (99) Unknown if injured

UPDATE CANDIDATE

NO ☒YES ☐

*** STOP HERE ***

IF THERE ARE NO RECORDED INJURIES
(I.E., OA43=00, 97, 99)



U.S. Department of Transportation
National Highway Traffic Safety
Administration

Form Approved
O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

OCCUPANT INJURY FORM

1. Primary Sampling Unit Number

NCST

3. Vehicle Number

01

2. Case Number—Stratum

90-10

4. Occupant Number

01

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

	Source of Injury Data	O.I.C.—A.I.S.				Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.		
		Body Region	Aspect	Lesion	System Organ				A.I.S. Severity	
1st	6.1	6.W	7.R	8.L	9.I	10.1	11.97	12.7	13.9	14.---
2nd	15.---	16.---	17.---	18.---	19.---	20.---	21.---	22.---	23.---	24.---
3rd	25.---	26.---	27.---	28.---	29.---	30.---	31.---	32.---	33.---	34.---
4th	35.---	36.---	37.---	38.---	39.---	40.---	41.---	42.---	43.---	44.---
5th	45.---	46.---	47.---	48.---	49.---	50.---	51.---	52.---	53.---	54.---
6th	55.---	56.---	57.---	58.---	59.---	60.---	61.---	62.---	63.---	64.---
7th	65.---	66.---	67.---	68.---	69.---	70.---	71.---	72.---	73.---	74.---
8th	75.---	76.---	77.---	78.---	79.---	80.---	81.---	82.---	83.---	84.---
9th	85.---	86.---	87.---	88.---	89.---	90.---	91.---	92.---	93.---	94.---
10th	95.---	96.---	97.---	98.---	99.---	100.---	101.---	102.---	103.---	104.---

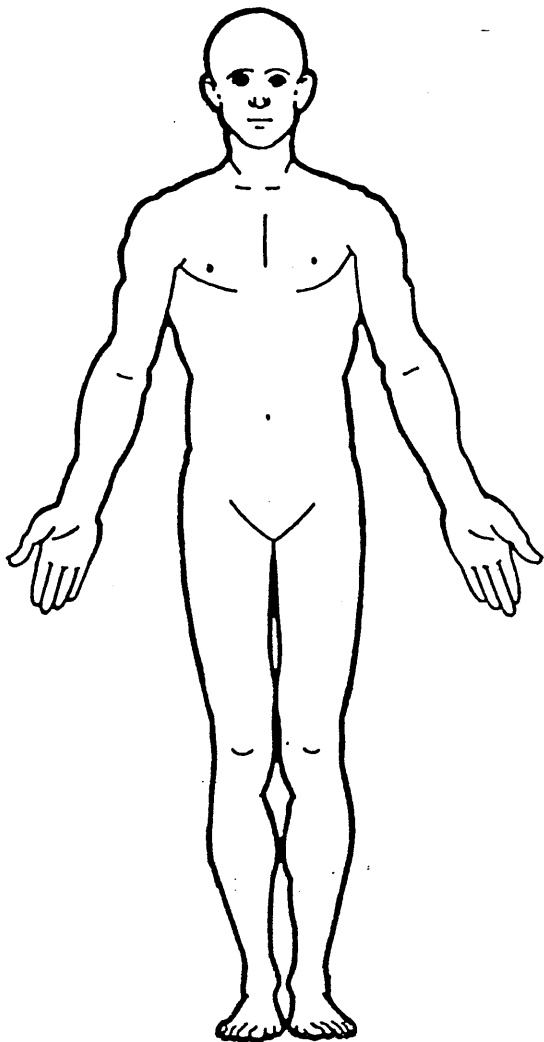
OCCUPANT INJURY DATA

	Source of Injury Data	O.I.C.—A.I.S.					Injury Source	Injury Source Confidence Level	Direct/Indirect Injury	Occupant Area Intrusion No.
		Body Region	Aspect	Lesion	System Organ	A.I.S. Severity				
11th	—	—	—	—	—	—	—	—	—	—
12th	—	—	—	—	—	—	—	—	—	—
13th	—	—	—	—	—	—	—	—	—	—
14th	—	—	—	—	—	—	—	—	—	—
15th	—	—	—	—	—	—	—	—	—	—
16th	—	—	—	—	—	—	—	—	—	—
17th	—	—	—	—	—	—	—	—	—	—
18th	—	—	—	—	—	—	—	—	—	—
19th	—	—	—	—	—	—	—	—	—	—
20th	—	—	—	—	—	—	—	—	—	—
21st	—	—	—	—	—	—	—	—	—	—
22nd	—	—	—	—	—	—	—	—	—	—
23rd	—	—	—	—	—	—	—	—	—	—

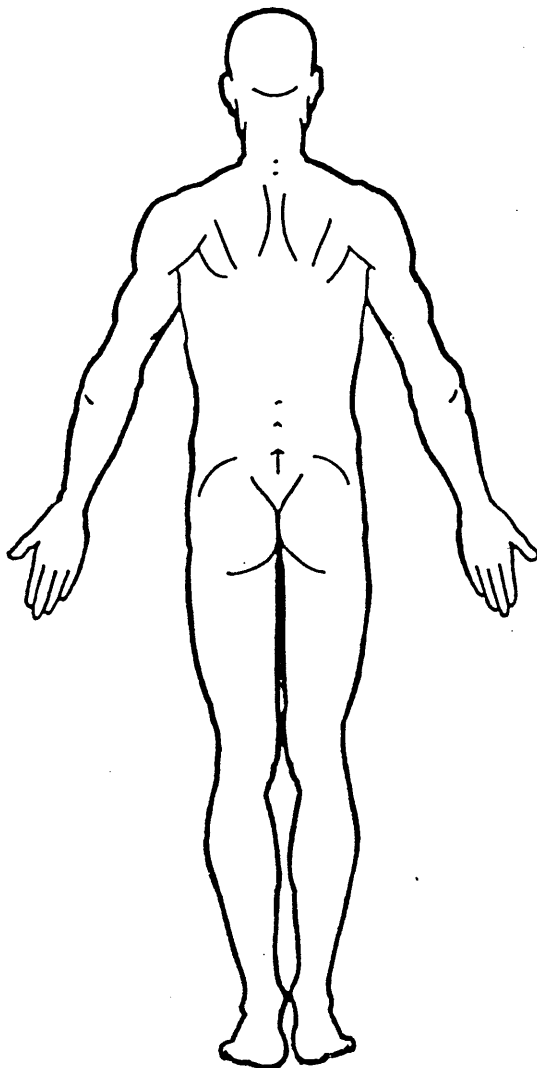
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OFFICIAL INJURY DATA—SOFT TISSUE INJURIES

Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



NO MEDICAL TREATMENT



SOURCE OF INJURY DATA**OFFICIAL**

- (1) Autopsy records with or without hospital medical records
- (2) Hospital medical records other than emergency room (eg. discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency clinic

UNOFFICIAL

- (5) Lay coroner report
- (6) E.M.S. personnel
- (7) Interviewee
- (8) Other source (specify): _____
- (9) Police

INJURY SOURCE**FRONT**

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add-on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A-pillar, instrument panel, or mirror (passenger side only)
- (16) Other front object (specify): _____

LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A pillar
- (23) Left B pillar
- (24) Other left pillar (specify): _____
- (25) Left side window glass or frame

- (26) Left side window glass including one or more of the following: frame, window sill, A-pillar, B-pillar, or roof side rail
- (27) Other left side object (specify): _____

RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A pillar
- (33) Right B pillar
- (34) Other right pillar (specify): _____
- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A-pillar, B-pillar, roof side rail
- (37) Other right side object (specify): _____

INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar attachment point
- (43) Other restraint system component (specify): _____
- (44) Head restraint system
- (45) Air bag
- (46) Other occupants (specify): _____
- (47) Interior loose objects
- (48) Child safety seat (specify): _____
- (49) Other interior object (specify): _____

ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR

- (56) Floor including toe pan
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR

- (60) Backlight (rear window)
- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify): _____

EXTERIOR OF OCCUPANT'S VEHICLE

- (65) Hood
- (66) Outside hardware (e.g., outside mirror, antenna)
- (67) Other exterior surface or tires (specify): _____
- (68) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE

- (70) Front bumper
- (71) Hood edge
- (72) Other front of vehicle (specify): _____
- (73) Hood
- (74) Hood ornament
- (75) Windshield, roof rail, A-pillar
- (76) Side surface
- (77) Side mirrors
- (78) Other side protrusions (specify): _____
- (79) Rear surface
- (80) Undercarriage
- (81) Tires and wheels
- (82) Other exterior of other motor vehicle (specify): _____

- (83) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

- (84) Ground
- (85) Other vehicle or object (specify): _____

- (86) Unknown vehicle or object

NONCONTACT INJURY

- (90) Fire in vehicle
- (91) Flying glass
- (92) Other noncontact injury source (specify): _____
- (97) Injured, unknown source

INJURY SOURCE CONFIDENCE LEVEL

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

DIRECT/INDIRECT INJURY

- (1) Direct contact injury
- (2) Indirect contact injury
- (3) Noncontact injury
- (7) Injured, unknown source

OCCUPANT INJURY CLASSIFICATION**O.I.C. Body Region**

- (M) Abdomen
- (K) Ankle-foot
- (A) Arm (upper)
- (B) Back-thoracolumbar spine
- (C) Chest
- (E) Elbow
- (F) Face
- (R) Forearm
- (H) Head-skull
- (U) Injured, unknown region
- (K) Knee
- (L) Leg (lower)
- (Y) Lower limb(s) (whole or unknown part)
- (N) Neck-cervical spine
- (P) Pelvic-hip
- (S) Shoulder
- (T) Thigh
- (Q) Upper limb(s) (whole or unknown part)
- (O) Whole body

(W) Wrist-hand**Aspect of Injury**

- (A) Anterior-front
- (B) Bilateral (rib fracture only)
- (C) Central
- (I) Inferior-lower
- (U) Injured, unknown aspect
- (L) Left
- (P) Posterior-back
- (R) Right
- (S) Superior-upper
- (W) Whole region

Lesion

- (A) Abrasion
- (M) Amputation
- (Y) Avulsion
- (B) Burn
- (K) Concussion
- (C) Contusion
- (N) Crush

(G) Detachment, separation

- (D) Dislocation
- (F) Fracture
- (Z) Fracture and dislocation
- (U) Injured, unknown lesion
- (L) Laceration
- (O) Other
- (P) Perforation, puncture
- (R) Rupture
- (S) Sprain
- (T) Strain
- (E) Total severance, transection

System/Organ

- (W) All systems in region
- (A) Arteries-veins
- (B) Brain
- (D) Digestive
- (E) Ears
- (O) Eye
- (H) Heart
- (U) Injured, unknown system

(I) Integumentary

- (J) Joints
- (K) Kidneys
- (L) Liver
- (M) Muscles
- (N) Nervous system
- (P) Pulmonary-lungs
- (R) Respiratory
- (S) Skeletal
- (C) Spinal cord
- (Q) Spleen
- (T) Thyroid, other endocrine gland
- (G) Urogenital
- (V) Vertebrae

Abbreviated Injury Scale

- (1) Minor injury
- (2) Moderate injury
- (3) Serious injury
- (4) Severe injury
- (5) Critical injury
- (6) Maximum (untreatable)
- (7) Injured, unknown severity



OCCUPANT ASSESSMENT FORM

1. Primary Sampling Unit Number <u>NCSI</u>	11. Occupant's Posture <u>0</u> (0) Normal posture (1) Abnormal posture (specify): (9) Unknown
2. Case Number—Stratum <u>90-10</u>	
3. Vehicle Number <u>01</u>	
4. Occupant Number <u>02</u>	
OCCUPANT'S CHARACTERISTICS	
5. Occupant's Age <u>16</u> Code actual age at time of accident. (00) Less than one year old (specify by month): (97) 97 years and older (99) Unknown	12. Ejection <u>0</u> (0) No ejection (1) Complete ejection (2) Partial ejection (3) Ejection, unknown degree (9) Unknown
6. Occupant's Sex <u>1</u> (1) Male (2) Female (9) Unknown	13. Ejection Area <u>0</u> (0) No ejection (1) Windshield (2) Left front (3) Right front (4) Left rear (5) Right rear (6) Rear (7) Roof (8) Other area (e.g., back of pickup, etc.) (specify): (9) Unknown
7. Occupant's Height <u>6'</u> <u>73</u> Code actual height to the nearest inch. (99) Unknown	14. Ejection Medium <u>0</u> (0) No ejection (1) Door/hatch/tailgate (2) Nonfixed roof structure (3) Fixed glazing (4) Nonfixed glazing (specify): (5) Integral structure (8) Other medium (specify): (9) Unknown
8. Occupant's Weight <u>190</u> <u>190</u> Code actual weight to the nearest pound. (999) Unknown	15. Medium Status (Immediately Prior to Impact) <u>0</u> (0) No ejection (1) Open (2) Closed (3) Integral structure (9) Unknown
9. Occupant's Role <u>2</u> (1) Driver (2) Passenger (9) Unknown	16. Entrapment <u>0</u> (NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.) (0) Not entrapped (1) Entrapped (9) Unknown
10. Occupant's Seat Position <u>13</u> Front Seat (11) Left side (12) Middle (13) Right side (14) Other (specify): Second Seat (21) Left side (22) Middle (23) Right side (24) Other (specify): Third Seat (31) Left side (32) Middle (33) Right side (34) Other (specify): Fourth Seat (41) Left side (42) Middle (43) Right side (44) Other (specify): (97) In or on unenclosed area (98) Other seat (specify): (99) Unknown	

RESTRAINT SYSTEM AND SEAT EVALUATION**17. Manual (Active) Belt System Availability** 4

- (0) Not available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown
- (8) Other belt (specify): _____

(9) Unknown

18. Manual (Active) Belt System Use 0 0

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify): _____

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used—type unknown
- (08) Other belt used (specify): _____

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat—type unknown
- (18) Other belt used with child safety seat (specify): _____

(99) Unknown if belt used

19. Proper Use of Manual (Active) Belts 0

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____

(8) Other improper use of manual belt system (specify): _____

(9) Unknown

20. Manual (Active) Belt Failure Modes During Accident 0

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____

- (6) Broken retractor
- (7) Combination of above (specify): _____

(8) Other manual belt failure (specify): _____

(9) Unknown

21. Automatic (Passive) Restraint System Availability 0

- (0) Not equipped/not available
- (1) Airbag
- (2) Airbag disconnected (specify): _____

- (3) Airbag not reinstalled
- (4) 2 point automatic belts
- (5) 3 point automatic belts
- (6) Automatic belts destroyed or rendered inoperative
- (9) Unknown

22. Automatic (Passive) Restraint Function 0

- (0) Not equipped/not available

Automatic Belt

- (1) Automatic belt in use
- (2) Automatic belt not in use
- (3) Automatic belt use unknown

Air Bag

- (4) Airbag deployed during accident
- (5) Airbag deployed inadvertently just prior to accident
- (6) Deployed, accident sequence undetermined
- (7) Nondeployed
- (8) Unknown if deployed
- (9) Unknown

23. Did Automatic (Passive) Restraint Fail? 0

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify): _____

(9) Unknown

24. Police Reported Restraint Use 0

- (0) None used
- (1) Police did not indicate restraint use
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt used, type not specified
- (6) Child safety seat
- (7) Other or automatic restraint (specify): _____

- (8) Restrained, type unknown
- (9) Police indicated "unknown"

25. Head Restraint Type/Damage by Occupant at This Occupant Position 3

- (0) No head restraints
- (1) Integral—no damage
- (2) Integral—damaged during accident
- (3) Adjustable—no damage
- (4) Adjustable—damaged during accident
- (5) Add-on—no damage
- (6) Add-on—damaged during accident
- (8) Other (specify): _____

(9) Unknown

26. Seat Type (This Occupant Position) 02
- (00) Occupant not seated or no seat
 - (01) Bucket
 - (02) Bucket with folding back
 - (03) Bench
 - (04) Bench with separate back cushions
 - (05) Bench with folding back(s)
 - (06) Split bench with separate back cushions
 - (07) Split bench with folding back(s)
 - (08) Pedestal (i.e., van type)
 - (09) Other seat type (specify):

(99) Unknown

27. Seat Performance (This Occupant Position) 1
- (0) Occupant not seated or no seat
 - (1) No seat performance failure(s)
 - (2) Seat adjusters failed
 - (3) Seat back folding locks failed
 - (4) Seat track/anchors failed
 - (5) Deformed by impact of occupant
 - (6) Deformed by passenger compartment intrusion (specify):

(7) Combination of above (specify):

(8) Other (specify):

(9) Unknown

CHILD SAFETY SEAT

28. Child Safety Seat Make/Model 000
- (000) No child safety seat
- Applicable codes are found in your NASS CDS Data Collection, Coding, and Editing Manual
- (997) Other make/model (specify):

(998) Unknown make/model

(999) Unknown if child safety seat used

29. Type of Child Safety Seat 0
- (0) No child safety seat
 - (1) Infant seat
 - (2) Toddler seat
 - (3) Convertible seat
 - (4) Booster seat
 - (7) Other type child safety seat (specify):

(8) Unknown child safety seat type

(9) Unknown if child safety seat used

30. Child Safety Seat Orientation 00
- (00) No child safety seat

Designed for Rear Facing for This Age/Weight

- (01) Rear facing
- (02) Forward facing
- (08) Other orientation (specify):

(09) Unknown orientation

Designed for Forward Facing for This Age/Weight

- (11) Rear facing
- (12) Forward facing
- (18) Other orientation (specify):

(19) Unknown orientation

Unknown Design or Orientation for This Age/Weight, or Unknown Age/Weight

- (21) Rear facing
- (22) Forward facing
- (28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

31. Child Safety Seat Harness Usage 00

32. Child Safety Seat Shield Usage 00

33. Child Safety Seat Tether Usage 00
- Note: Options below applicable to Variables OA31-OA33.
- (00) No child safety seat

Not Designed with
Harness/Shield/Tether

(01) After market harness/shield/tether added, not used

(02) After market harness/shield/tether used

(03) Child safety seat used, but no after market harness/shield/tether added

(09) Unknown if harness/shield/tether added or used

Designed with Harness/Shield/Tether

(11) Harness/shield/tether not used

(12) Harness/shield/tether used

(19) Unknown if harness/shield/tether used

Unknown If Designed with Harness/Shield/Tether

(21) Harness/shield/tether not used

(22) Harness/shield/tether used

(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

National Accident Sampling System—Crashworthiness Data System: Occupant Assessment Form

Page 4

INJURY CONSEQUENCES34. Injury Severity (Police Rating) 0

- (0) O—No injury
- (1) C—Possible injury
- (2) B—Nonincapacitating injury
- (3) A—Incapacitating injury
- (4) K—Killed
- (5) U—Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

35. Treatment—Mortality 0

- (0) No treatment
- (1) Fatal
- (2) Fatal—ruled disease
- Nonfatal
- (3) Hospitalized
- (4) Transported and released
- (5) Treatment at scene—nontransported
- (6) Treatment later
- (8) Treatment—other (specify):

(9) Unknown

36. Type of Medical Facility (for Initial Treatment) 0

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):

(9) Unknown

37. Hospital stay 00

- Code number of days (up through 60) that the occupant stayed in the hospital
- (00) Not hospitalized
- (61) 61 days or more
- (99) Unknown

38. Working Days Lost 00

- Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

39. Time to Death 00

- Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)
- (00) Not fatal
- (96) Fatal—ruled disease
- (99) Unknown

40. 1st Medically Reported Cause of Death 0041. 2nd Medically Reported Cause of Death 0042. 3rd Medically Reported Cause of Death 00

- Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death

(00) Not fatal or no additional causes

(97) Other result (specify):

(99) Unknown

43. Number of Recorded Injuries for This Occupant 01

- Code the actual number of injuries recorded for this occupant.
- (00) No recorded injuries
- (97) Injured, details unknown
- (99) Unknown if injured

UPDATE CANDIDATE

NO ☒YES ☐

*** STOP HERE ***

IF THERE ARE NO RECORDED INJURIES

(I.E., OA43=00, 97, 99)



U.S. Department of Transportation
National Highway Traffic Safety
Administration

Form Approved
O.M.B. No. 2127-0021

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

OCCUPANT INJURY FORM

1. Primary Sampling Unit Number NCST 3. Vehicle Number 01
2. Case Number—Stratum 90-10 4. Occupant Number 02

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

	Source of Injury Data	O.I.C.—A.I.S.				Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.	
		Body Region	Aspect	Lesion	System Organ					A.I.S. Severity
1st	5. <u>7</u>	6. <u>L</u>	7. <u>L</u>	8. <u>C</u>	9. <u>I</u>	10. <u>1</u>	11. <u>57</u>	12. <u>9</u>	13. <u>7</u>	14. <u>—</u>
2nd	15. <u>—</u>	16. <u>—</u>	17. <u>—</u>	18. <u>—</u>	19. <u>—</u>	20. <u>—</u>	21. <u>—</u>	22. <u>—</u>	23. <u>—</u>	24. <u>—</u>
3rd	25. <u>—</u>	26. <u>—</u>	27. <u>—</u>	28. <u>—</u>	29. <u>—</u>	30. <u>—</u>	31. <u>—</u>	32. <u>—</u>	33. <u>—</u>	34. <u>—</u>
4th	35. <u>—</u>	36. <u>—</u>	37. <u>—</u>	38. <u>—</u>	39. <u>—</u>	40. <u>—</u>	41. <u>—</u>	42. <u>—</u>	43. <u>—</u>	44. <u>—</u>
5th	45. <u>—</u>	46. <u>—</u>	47. <u>—</u>	48. <u>—</u>	49. <u>—</u>	50. <u>—</u>	51. <u>—</u>	52. <u>—</u>	53. <u>—</u>	54. <u>—</u>
6th	55. <u>—</u>	56. <u>—</u>	57. <u>—</u>	58. <u>—</u>	59. <u>—</u>	60. <u>—</u>	61. <u>—</u>	62. <u>—</u>	63. <u>—</u>	64. <u>—</u>
7th	65. <u>—</u>	66. <u>—</u>	67. <u>—</u>	68. <u>—</u>	69. <u>—</u>	70. <u>—</u>	71. <u>—</u>	72. <u>—</u>	73. <u>—</u>	74. <u>—</u>
8th	75. <u>—</u>	76. <u>—</u>	77. <u>—</u>	78. <u>—</u>	79. <u>—</u>	80. <u>—</u>	81. <u>—</u>	82. <u>—</u>	83. <u>—</u>	84. <u>—</u>
9th	85. <u>—</u>	86. <u>—</u>	87. <u>—</u>	88. <u>—</u>	89. <u>—</u>	90. <u>—</u>	91. <u>—</u>	92. <u>—</u>	93. <u>—</u>	94. <u>—</u>
10th	95. <u>—</u>	96. <u>—</u>	97. <u>—</u>	98. <u>—</u>	99. <u>—</u>	100. <u>—</u>	101. <u>—</u>	102. <u>—</u>	103. <u>—</u>	104. <u>—</u>

HS Form 433B (Rev. 1/90)

This report is authorized by P.L. 89-563, Title 1, Section 106, 106, and 112. While you are not required to respond, your cooperation is needed to make the results of this data collection effort comprehensive, accurate, and timely.

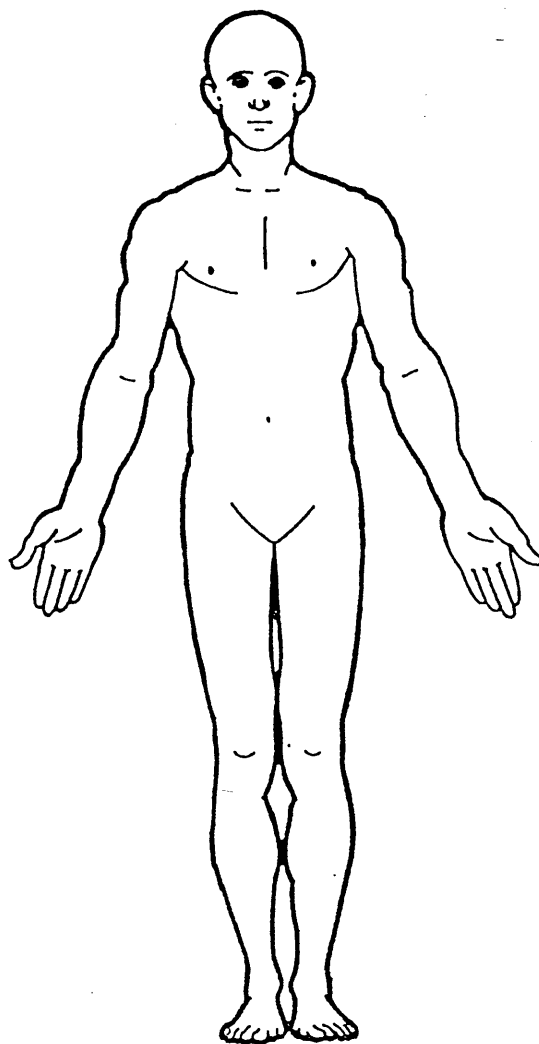
OCCUPANT INJURY DATA

	Source of Injury Data	O.I.C.—A.I.S.					Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.
		Body Region	Aspect	Lesion	System Organ	A.I.S. Severity				
11th	—	—	—	—	—	—	---	—	—	---
12th	—	—	—	—	—	—	---	—	—	---
13th	—	—	—	—	—	—	---	—	—	---
14th	—	—	—	—	—	—	---	—	—	---
15th	—	—	—	—	—	—	---	—	—	---
16th	—	—	—	—	—	—	---	—	—	---
17th	—	—	—	—	—	—	---	—	—	---
18th	—	—	—	—	—	—	---	—	—	---
19th	—	—	—	—	—	—	---	—	—	---
20th	—	—	—	—	—	—	---	—	—	---
21st	—	—	—	—	—	—	---	—	—	---
22nd	—	—	—	—	—	—	---	—	—	---
23rd	—	—	—	—	—	—	---	—	—	---

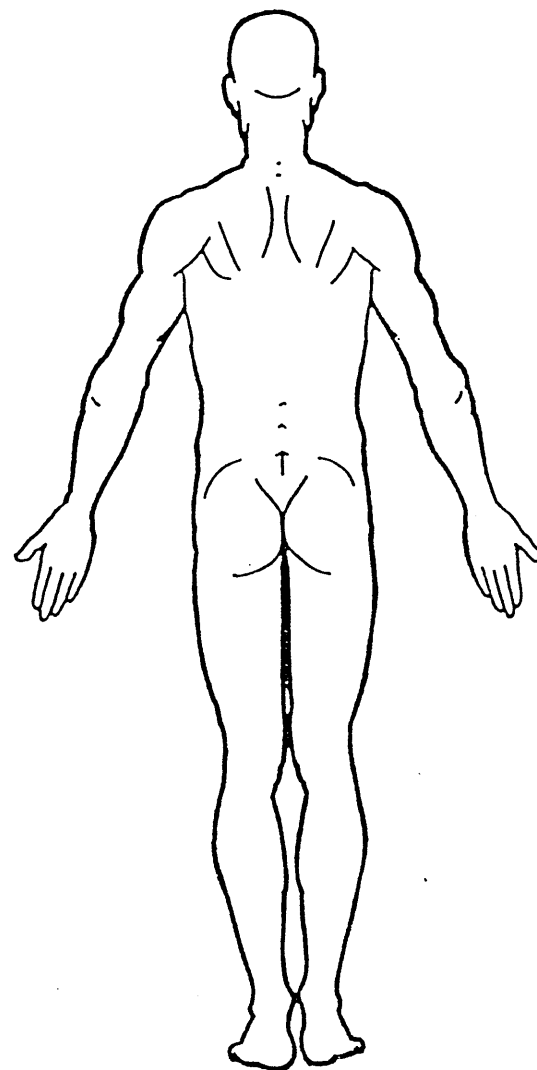
F4320 1-46-544

OFFICIAL INJURY DATA—SOFT TISSUE INJURIES

Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



NO MEDICAL TREATMENT



SOURCE OF INJURY DATA**OFFICIAL**

- (1) Autopsy records with or without hospital medical records
- (2) Hospital medical records other than emergency room (eg. discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency clinic

UNOFFICIAL

- (5) Lay coroner report
- (6) E.M.S. personnel
- (7) Interviewee
- (8) Other source (specify):
- (9) Police

INJURY SOURCE**FRONT**

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add-on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A-pillar, instrument panel, or mirror (passenger side only)
- (16) Other front object (specify):

LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A pillar
- (23) Left B pillar
- (24) Other left pillar (specify):
- (25) Left side window glass or frame

- (26) Left side window glass including one or more of the following: frame, window sill, A-pillar, B-pillar, or roof side rail
- (27) Other left side object (specify):

RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A pillar
- (33) Right B pillar
- (34) Other right pillar (specify):
- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A-pillar, B-pillar, roof side rail
- (37) Other right side object (specify):

INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar attachment point
- (43) Other restraint system component (specify):
- (44) Head restraint system
- (45) Air bag
- (46) Other occupants (specify):
- (47) Interior loose objects
- (48) Child safety seat (specify):
- (49) Other interior object (specify):

ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR

- (56) Floor including toe pan
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR

- (60) Backlight (rear window)
- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify):

EXTERIOR OF OCCUPANT'S VEHICLE

- (65) Hood
- (66) Outside hardware (e.g., outside mirror, antenna)
- (67) Other exterior surface or tires (specify):

- (68) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE

- (70) Front bumper
- (71) Hood edge
- (72) Other front of vehicle (specify):
- (73) Hood
- (74) Hood ornament
- (75) Windshield, roof rail, A-pillar
- (76) Side surface
- (77) Side mirrors
- (78) Other side protrusions (specify):

- (79) Rear surface
- (80) Undercarriage
- (81) Tires and wheels
- (82) Other exterior of other motor vehicle (specify):

- (83) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

- (84) Ground
- (85) Other vehicle or object (specify):

- (86) Unknown vehicle or object

NONCONTACT INJURY

- (90) Fire in vehicle
- (91) Flying glass
- (92) Other noncontact injury source (specify):
- (97) Injured, unknown source

INJURY SOURCE CONFIDENCE LEVEL

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

DIRECT/INDIRECT INJURY

- (1) Direct contact injury
- (2) Indirect contact injury
- (3) Noncontact injury
- (7) Injured, unknown source

OCCUPANT INJURY CLASSIFICATION**O.I.C. Body Region**

- (M) Abdomen
- (O) Ankle-foot
- (A) Arm (upper)
- (B) Back-thoracolumbar spine
- (C) Chest
- (E) Elbow
- (F) Face
- (R) Forearm
- (H) Head-skull
- (U) Injured, unknown region
- (K) Knee
- (L) Leg (lower)
- (Y) Lower limb(s) (whole or unknown part)
- (N) Neck-cervical spine
- (P) Pelvic-hip
- (S) Shoulder
- (T) Thigh
- (Q) Upper limb(s) (whole or unknown part)
- (O) Whole body

(W) Wrist-hand**Aspect of Injury**

- (A) Anterior-front
- (B) Bilateral (rib fracture only).
- (C) Central
- (I) Inferior-lower
- (U) Injured, unknown aspect
- (L) Left
- (P) Posterior-back
- (R) Right
- (S) Superior-upper
- (W) Whole region

Lesion

- (A) Abrasion
- (M) Amputation
- (V) Avulsion
- (B) Burn
- (K) Concussion
- (C) Contusion
- (N) Crush

- (G) Detachment, separation
- (D) Dislocation
- (F) Fracture
- (Z) Fracture and dislocation
- (U) Injured, unknown lesion
- (L) Laceration
- (O) Other
- (P) Perforation, puncture
- (R) Rupture
- (S) Sprain
- (T) Strain
- (E) Total severance, transection

System/Organ

- (W) All systems in region
- (A) Arteries-veins
- (B) Brain
- (D) Digestive
- (E) Ears
- (O) Eye
- (H) Heart
- (U) Injured, unknown system

- (I) Integumentary
- (J) Joints
- (K) Kidneys
- (L) Liver
- (M) Muscles
- (N) Nervous system
- (P) Pulmonary-lungs
- (R) Respiratory
- (S) Skeletal
- (C) Spinal cord
- (O) Spleen
- (T) Thyroid, other endocrine gland
- (G) Urogenital
- (V) Vertebrae

Abbreviated Injury Scale

- (1) Minor injury
- (2) Moderate injury
- (3) Serious injury
- (4) Severe injury
- (5) Critical injury
- (6) Maximum (unreleasable)
- (7) Injured, unknown severity



U.S. Department of Transportation
National Highway Traffic Safety
Administration

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

INTERVIEW FORM

Primary Sampling Unit Number NC5I

Interviewee(s) Role(s) or Name(s) DRIVER'S MOTHER

Case Number—Stratum 90-10

Vehicle Number 01

Review the Interview Cue Sheet prior to conducting interview(s) to ensure the acquisition of all pertinent data.

GENERAL DESCRIPTION OF ACCIDENT SEQUENCE

Just came out of m/s passing zone - speed up to 57 mph - started around car and almost around her when she turned left onto side road - she hit the right side of the car causing it to fishtail and slide sideways off the road - it was almost back around straight when it hit the pole - the driver of the other car said when it hit the pole it moved down and came off the ground

SPECIFIC QUESTIONS

LEFT DOOR? (SECTION)? → Jammed shut - Got out through hatch

CONDITION OF POLE? (CRACKED, ETC.)? → Broke it over

Key to Researcher: Have you obtained the following through the interviewee(s) description and specific questions?

- ☐ PRE-CRASH, AT IMPACT
vehicle travel/driver intention
☐ Direction of travel
☐ Avoidance maneuvers
☐ Impact description/orientation

- ☐ Speed estimates (precrash/at impact)
☐ Post-impact trajectory
☐ Door status (precrash/postcrash)
☐ Final rest position

- ☐ Previous vehicle damage
☐ Glazing type
☐ Vehicle glazing status
☐ PAR clarifications
☐ Glove box status

Cargo? No ☒ Yes ☐ Interviewee's Estimated Cargo Weight _____

Description of Cargo _____

Present Location of Vehicle (if not yet inspected)? _____

National Accident Sampling System—Crashworthiness Data System: Interview Form

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OCCUPANT DATA

Enter the occupant's seat position in the first row and complete the column below it using the information from the interviewee(s).

SEAT POSITION	L F	R F		
AGE/SEX	17	16		
HEIGHT (IN.)	6 ²	6 ¹		
WEIGHT (LBS.)	186	190		
POSTURE	NORMAL	NORMAL		
EJECTED? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes				
DESCRIBE THE EJECTION				
ENTRAPPED? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes				
DESCRIBE ENTRAPMENT				
TYPE OF RESTRAINT AVAILABLE?	L & S AIRBAG	L & S		
HOW WERE THE BELTS WORN?	NOT WORN	NOT WORN		
DESCRIBE ANY RESTRAINT FAILURE MODE	NONE	NONE		
TYPE OF TREATMENT	NONE	NONE		
DAYS IN HOSPITAL?	0	0		
NO. OF LOST WORK DAYS?	0	0		

National Accident Sampling System—Crashworthiness Data System: Interview Form

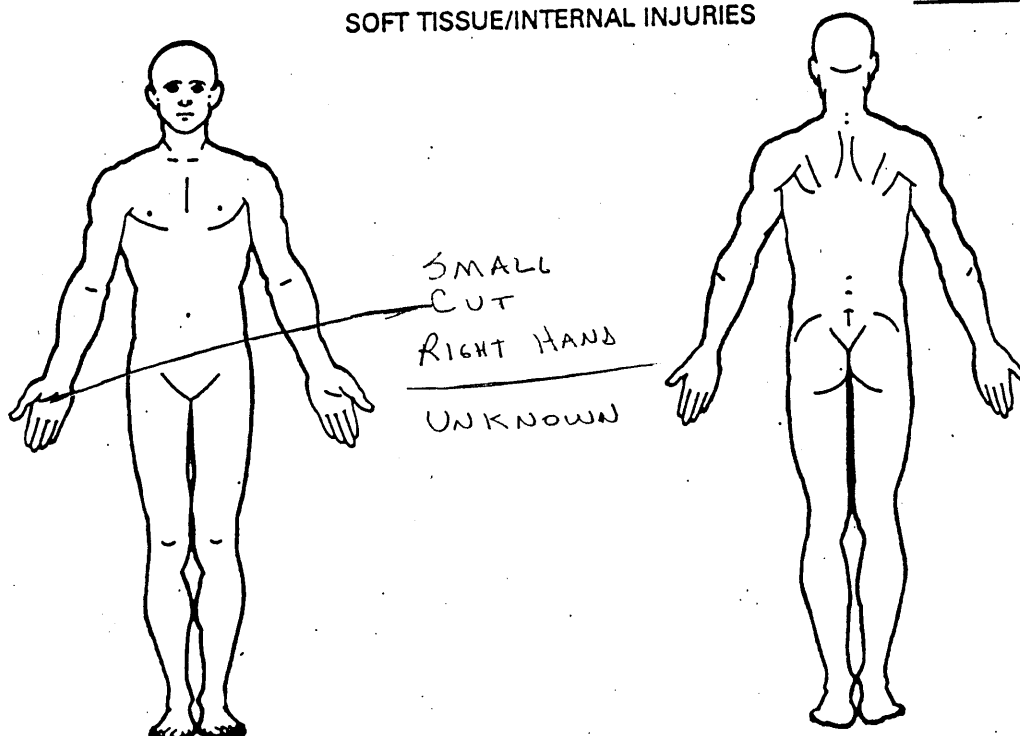
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PSU Number NCST Case Number—Stratum 90-10 Vehicle Number 01 Occupant Number 01

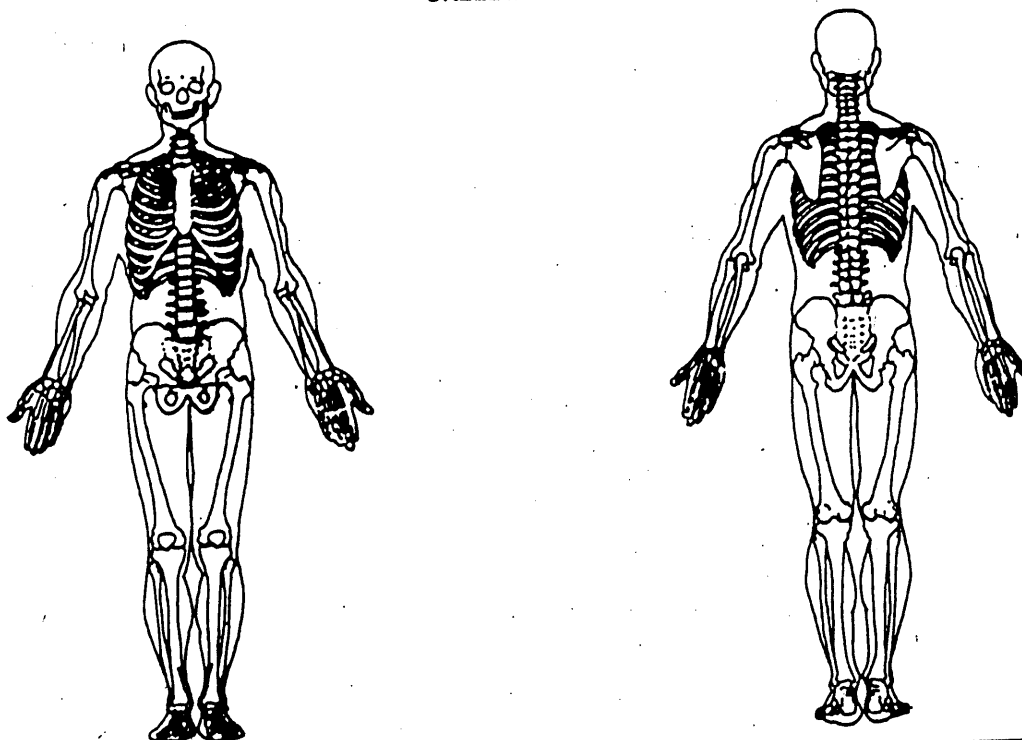
INJURY DATA FROM INTERVIEWEE(S)

Indicate the Location, Lesion, Detail, and Source of all injuries. Specify interviewee(s): DRIVER'S MOTHER

SOFT TISSUE/INTERNAL INJURIES



SKELETAL INJURIES



The space provided on the back of this page may be used to document injuries noted by the interviewee(s).

National Accident Sampling System—Crashworthiness Data System: Interview Form

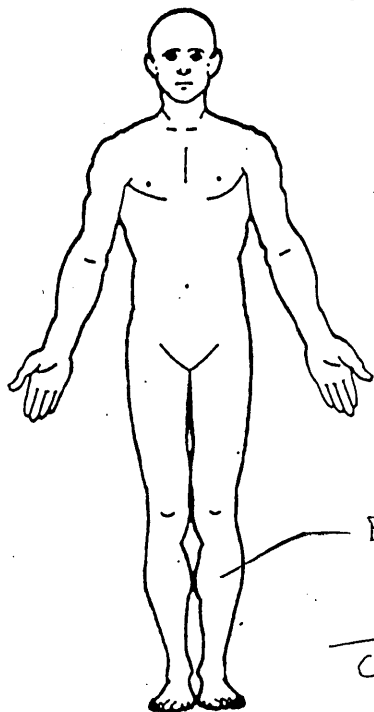
Page 3

PSU Number NCSTCase Number—Stratum 90-10Vehicle Number 01Occupant Number 02

INJURY DATA FROM INTERVIEWEE(S)

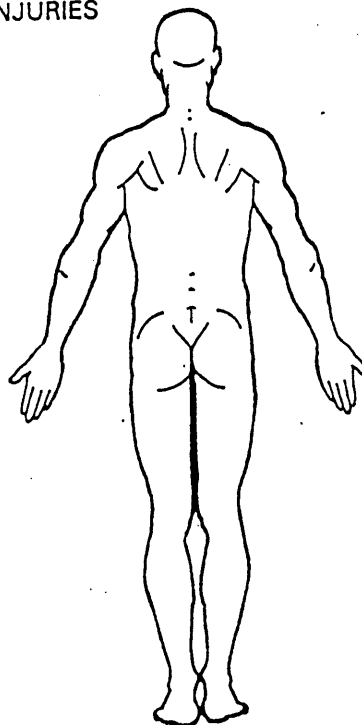
Indicate the Location, Lesion, Detail, and Source of all injuries. Specify interviewee(s): DRIVER'S MOTHER

SOFT TISSUE/INTERNAL INJURIES

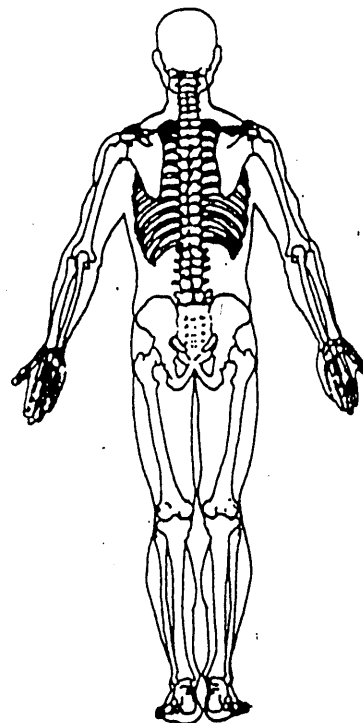
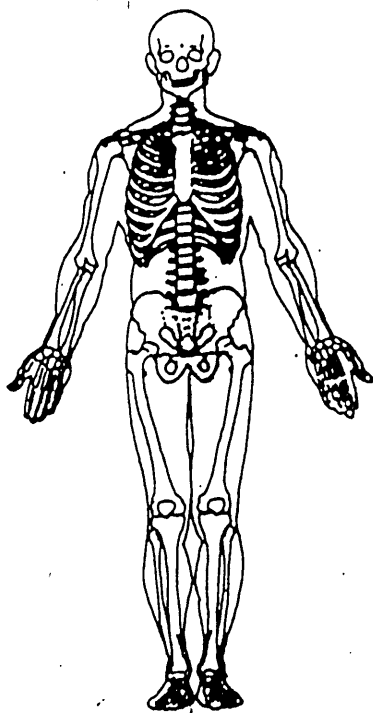


BRUISE
LEFT
LEG

CONSOLE



SKELETAL INJURIES



The space provided on the back of this page may be used to document injuries noted by the interviewee(s).

OCCUPANT INJURY DATA

Indicate the Location, Lesion, Detail, and Source of all injuries indicated by the interviewee(s).

	LOCATION (Body Region/Aspect/ System Organ)	LESION	DETAIL CONCERNING LESION	INJURY SOURCE
HEAD/ NECK				
CHEST/ BACK				
ABDOMEN PELVIS				
EXTREMITIES	RIGHT HAND	CUT	SMALL	UNKNOWN
	LEFT LEG	BRUISE	SMALL	CONSOLE
ADDITIONAL INJURIES				

Appendix C:
AIRBAG SUPPLEMENT FORMS

ACCIDENT SUMMARY

ACCIDENT DATE / 90

POLICE INVESTIGATED (1,2,9)*

 STATE POLICECity County

GENERAL LOCALITY

- (1) Freeway, Limited Access
(2) Urban (City)
(3) Urban-Rural (mixed)
 Rural, Fields

CONFIGURATION (First Harm)

- (0) Struck Object or Pedestrian
(1) Rear-End
(2) Head-On
(3) Rear-to-Rear
(4) Angle
(5) Sideswipe-Same Direction
(6) Sideswipe-Opposite Direct.
(7) NonColl:eg Fell from Yeh
(8) NonImpact Deployment
(9) Unknown

FIRE INVOLVED (0) None

- (1) AirBag Vehicle
(2) Other Vehicle
(3) Both Vehicles
(9) Unknown

NUMBER: VEHICLES INVOLVED

(8)=8 or more
PERSONS INVOLVED

INJURED PERSONS

MAXIMUM AIS IN ACCIDENT

OTHER VEHICLE: MAXIMUM AIS

PRIME/DEPLOY IMPACT * AB YEH:
EVENT NUMBERCDC 10-FLEE-1

TOTAL DELTA-Y

Model Year: Make: Model: Body Type:

1974 FORD TORINO

AIRBAG VEHICLE INSPECTION

DATE VEH. INSPECTED / 90

REASON VEHICLE NOT INSPECTED

- (0) Not Required
(1) Inspection Completed
(2) Cannot be Located**
(3) Repaired or Destroyed**
(5) Refual or Impounded**
(7) Other*

**Specify:

IMPACT DATA OBTAINED

- (0) No Data Obtained
(1) CDC Only
(2) Crush Profile Only
(3) Trajectory Data Only
(4) CDC and Crush Profile
(5) CDC and Trajectory
(6) Crush and Trajectory
(7) CDC, Crush & Trajectory

BASIS OF DELTA-Y

- (0) Not Computed (Unknown Why)
(1) CRASH - Damage Only
(2) CRASH - Damage+Trajectory
(3) Missing Vehicle Algorithm
(4) Yielding Object Algorithm
(5) Unknown Basis
(6) One Vehicle Beyond Scope
(7) Collision Beyond Scope
(8) Insufficient Data

VEHICLE HISTORY

HAS AIRBAG VEHICLE BEEN IN
ANY PRIOR IMPACTS (1,2,9)*HAS ANY PRIOR MAINTENANCE/SERVICE
BEEN PERFORMED ON SYSTEM(1,2,9)**Describe: AIRBAG VEHICLE: FLEET VIN 103XG2430MILEAGE 9416

* (1)=Yes, (2)=No, (9)=Unknown

SYSTEM READINESS LAMP
(in Instrument Cluster)

PRE-IMPACT LAMP CONDITION

- (1) Functioning/ProvedOut
- (2) Inoperative
- (9) Unknown

DRIVER'S REPORT OF
PRE-IMPACT FLASHING

- (00) No Flashing Reported
- (01) Continuous Flashing
- (02) --->Number of Flashes
- (11)
- (12) Constant Light
- (19) Flashing, Unkn Number
- (88) Not App (system removed)
- (99) Unknown

PERIOD OF PRE-IMPACT FLASHING

- (0) No Flashing
- (1) Same Day as Impact
- (2) Prior Day
- (3) Prior Two Days
- (4) Prior Week
- (5) Prior Month
- (6) Over One Month
- (9) Unknown

POST-IMPACT LAMP CONDITION

- (1) Functioning/ProvedOut
- (2) Inoperative
- (9) Unknown

POST-IMPACT FLASHING

- (00) No Flashing
- (01) Continuous Flashing
- (02) -->Number of Flashes
- (11)
- (12) Constant Light
- (19) Flashing, Unkn Number
- (88) Not Appl (removed)
- (99) Unknown

AIRBAG VEHICLE
FIRST HARMFUL EVENT

1 3

- (01) Fire or explosion
- (02) Immersion
- (03) Gas Inhalation
- (04) Fell from vehicle
- (05) Injured in vehicle
- (06) Other noncollision (specify):
- (07) Overturn
- (08) Jackknife with intraunit damage
- Collision With:
- (09) Pedestrian
- (10) Pedalcyclist
- (11) Railway train
- (12) Animal
- (13) Motor vehicle in transport (same roadway)
- (14) Motor vehicle in transport (other roadway)
- (15) Parked motor vehicle
- (16) Other type nonmotorist (specify):
- (17) Thrown or falling object
- (18) Boulder
- Collision with Fixed Object:
- (20) Building
- (21) Impact attenuator/Crash Cushion
- (22) Bridge pier or abutment
- (23) Bridge parapet end
- (24) Bridge rail
- (25) Guardrail
- (26) Concrete traffic barrier
- (27) Median barrier
- (28) Other longitudinal barrier (specify):
- (29) Highway/Traffic sign post
- (30) Overhead sign support
- (31) Luminaire/Light support
- (32) Utility pole
- (33) Other post, pole, or support (specify):
- (34) Culvert
- (35) Curb
- (36) Ditch
- (37) Embankment-earth
- (38) Embankment-rock, stone or concrete
- (39) Fence (wooden, wire, chain link, etc.)
- (40) Wall (stone, rock, metal, etc.)
- (41) Fire hydrant
- (42) Shrubbery
- (43) Tree
- (44) Other fixed object (specify):
- (45) Pavement surface irregularity (pothole, grooved, grates)
- (99) Unknown

AIRBAG VEHICLE IMPACT SUMMARY

VEHICLE ROLE

- (0) Non-collision
 1) Striking Unit
 2) Struck Unit
 (3) Both Striking and Struck
 (9) Unknown

MANNER OF LEAVING SCENE

- 1) Driven
 2) Towed-due to damage
 (3) Towed - not for damage
 4) Towed - details unknown
 5) Abandoned
 (9) Unknown

NUMBER OF IMPACT EVENTS

- (8) 8 or more, (9) Unknown

ROLLOVER (0) No Rollover

- (1) First Event
 (2) Subsequent Event
 (3) Yes, Unknown Event
 (9) Unknown

OVERRIDE/UNDERRIDE

- (1) No over/underride
 (1) Override - 1st CDC
 3) - Other CDC
 (4) Underride - 1st CDC
 (6) - Other CDC
 (9) Unknown

AIRBAG VEHICLE DAMAGE

- CODES: (1) Yes, DAMAGED
 (2) No Damage
 (9) Unknown

LEFT FRONT FENDER DAMAGE

RIGHT FRONT FENDER DAMAGE

CENTER TOP OF GRILLE DAMAGE

FRONT BUMPER E.A. STATUS: Left

- (1) Normal
 (2) Extended
 (3) Partial Compression
 (4) Complete Compression
 (5) Not Applicable
 (9) Unknown

FIRST AIRBAG VEHICLE IMPACT:

CONFIGURATION

- (0) Struck Object or Pedestrian
 (1) Rear-End
 (2) Head-On
 (3) Rear-to-Rear
 (4) Angle
 (5) Sideswipe - Same Direction
 (6) Sideswipe-Opposite Direct.
 (7) NonCollision Fell from Veh
 (8) NonImpact Deployment
 (9) Unknown

CDC 12 - BZEW - 2OBJECT CONTACTED: V2

PRIMARY/DEPLOYMENT IMPACT:

EVENT NUMBER

TOTAL DELTA-Y

LONGITUDINAL DELTA-Y

CONFIGURATION

- (0) Struck Object or Pedestrian
 (1) Rear-End
 (2) Head-On
 (3) Rear-to-Rear
 (4) Angle
 (5) Sideswipe - Same Direction
 (6) Sideswipe-Opposite Direct.
 (7) NonCollision Fell from Veh
 (8) NonImpact Deployment
 (9) Unknown

CDC 11 - LYAW - 2OBJECT CONTACTED: WOODEN UTILITY POLE

NOTES:

AIRBAG SYSTEM DAMAGE

CODES: (1) Yes, Damaged*
 (2) No, Intact
 (8) Not App. (Removed)
 (9) Unknown

AIRBAG MODULE

SENSORS: Left Front

Center Front

Right Front

Rear, Cowl

DIAGNOSTIC MODULE

WIRING

KNEE DIVERTER

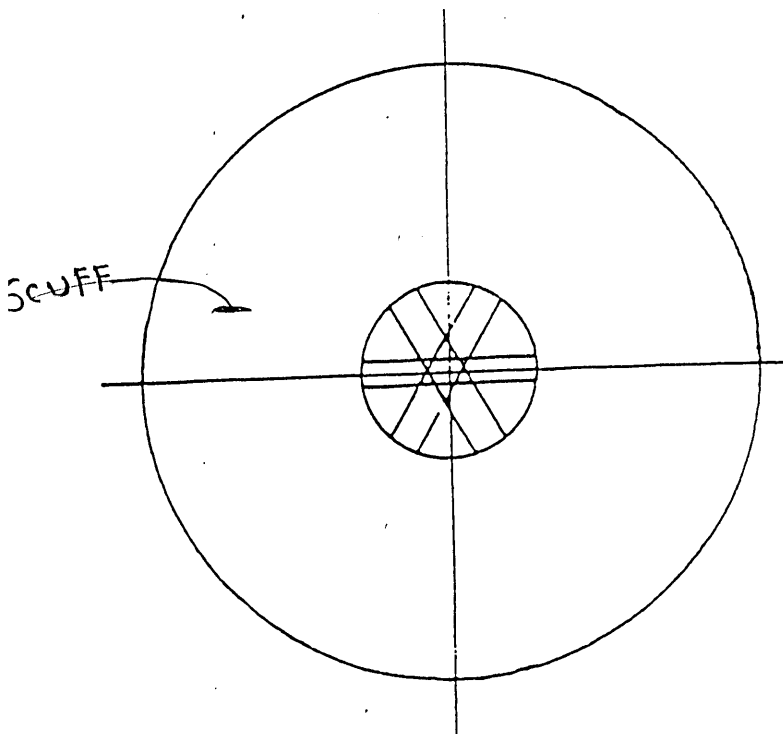
INDICATION OF DISCONNECTED
 OR LOOSE ELECTRICAL
 CONNECTORS

CONDITION OF DEPLOYED BAG

(1) Bag Intact
 (2) Split or Torn*
 (3) Cut by Object in Impact*
 (4) Cut after Accident*
 (5) Other (e.g., burned)*
 (8) N/A (not deployed)
 (9) Unknown

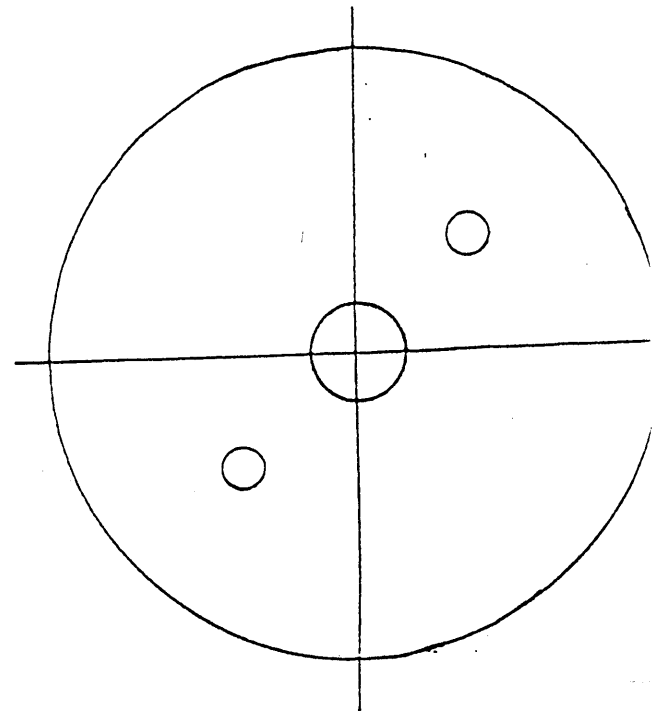
*DESCRIBE System and Bag Damage:

NOTE DAMAGE AND CONTACT MARKS ON AIRBAG DIAGRAMS BELOW:



FRONT

TOP



BOTTOM

BACK

NOTES:

DRIVER BELT USAGE: (1) Used (2) Not Used (9) Unknown 2

Evidence: NO EVIDENCE OF USAGE

DRIVER POSTURE: Any Comments Recorded (1) Yes, (2) No 2

Describe driver's posture and position on seat including specific comments on head, torso, buttocks, legs and feet. Also note hand and arm position. Did driver brace before crash? Describe:

NORMAL

DRIVER FOREIGN OBJECTS: Comments Recorded (1) Yes, (2) No 2

Was driver wearing contact lenses or eyeglasses? Or holding any foreign object at the time of the impact (packages on lap, pipe, food, bottle, cigarette, etc.)? Did any lenses, objects, or jewelry play any role?:

NO GLASSES, ETC.

DRIVER COMMENTS: Comments Recorded (1) Yes, (2) No 1

Was the driver aware that the vehicle was equipped with a supplemental restraint system? Did driver offer any comments on smoke, noise, etc.? Did the driver comment on the airbag as a restraint system? Describe:

CAR FILLED WITH SMOKE AND THEY THOUGHT IT WAS ON FIRE AND WAS GOING TO EXPLODE - WHEN THEY GOT OUT THEY RAN DOWN THE ROAD - CREDITED THE AIRBAG WITH REDUCING HIS INJURIES - BOUGHT ANOTHER CAR JUST LIKE IT

PASSENGER-AIRBAG CONTACT (1) Yes, (2) No, (9) Unknown 1

Describe: PASSENGER STATED HE CONTACTED THE AIR BAG AND IT PROBABLY REDUCED HIS INJURIES

Appendix D:
EDCRASH RESULTS



U.S. Department of Transportation
National Highway Traffic Safety
Administration

BEST AVAILABLE COPY

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

CRASHPC PROGRAM SUMMARY

Identifying Title <u>NCSI</u>		<u>90-10</u> Case No. - Stratum	<u>03</u> Accident Event Sequence No.	_____ Date (mm dd yy)
CRASHPC Vehicle Identification				
Vehicle 1	<u>1990</u>	<u>DODGE</u>	<u>DAYTONA</u>	<u>1</u>
Vehicle 2	<u>POLE</u>	_____ Year	_____ Model	_____ NASS Veh. No.

GENERAL INFORMATION

VEHICLE 1				VEHICLE 2			
Size				Size			
Weight	<u>2798</u>	<u>150</u>	<u>150</u>	Weight			
	Curb	Occupant(s)	Cargo		Curb	Occupant(s)	Cargo
CDC	<u>1144 AW 2</u>			CDC			
PDOF	<u>340</u>			PDOF			
Stiffness	<u>2</u>			Stiffness	<u>4</u>		

SCENE INFORMATION

Rest and Impact Positions <input checked="" type="checkbox"/> No, Go To Damage Information [] Yes			
VEHICLE 1		VEHICLE 2	
Rest Position		Rest Position	
X	_____	X	_____
Y	_____	Y	_____
PSI	_____	PSI	_____
Impact Position		Impact Position	
X	_____	X	_____
Y	_____	Y	_____
PSI	_____	PSI	_____
Slip Angle	_____	Slip Angle	_____

VEHICLE MOTION

Sustained Contact <input checked="" type="checkbox"/> No [] Yes			
VEHICLE 1		VEHICLE 2	
Skidding	[] No [] Yes	Skidding	[] No [] Yes
Skidding Stop Before Rest	[] No [] Yes	Skidding Stop Before Rest	[] No [] Yes
End-of-Skidding Position		End-of-Skidding Position	
X	_____	X	_____
Y	_____	Y	_____
PSI	_____	PSI	_____
Curved Path	[] No [] Yes	Curved Path	[] No [] Yes
Point on Path		Point on Path	
X	_____	X	_____
Y	_____	Y	_____
Rotation Direction	[] None [] CW [] CCW	Rotation Direction	[] None [] CW [] CCW
Rotation > 360°	[] No [] Yes	Rotation > 360°	[] No [] Yes

FRICTION INFORMATION

Coefficient of Friction . _____

Rolling Resistance Option _____

Vehicle 1 Rolling Resistance

LF _____ RF _____

LR _____ RR _____

Vehicle 2 Rolling Resistance

LF _____ RF _____

LR _____ RR _____

TRAJECTORY INFORMATIONTrajectory Data ☒ No ☐ Yes*If No, Go To Damage Information*

Vehicle 1 Steer Angles

LF _____ RF _____

LR _____ RR _____

Vehicle 2 Steer Angles

LF _____ RF _____

LR _____ RR _____

Terrain Boundary ☒ No ☐ Yes

First Point

X _____ Y _____

Second Point

X _____ Y _____

Secondary Friction Coefficient _____

DAMAGE INFORMATION

VEHICLE 1

Damage Length _____ 96.00

Crush Depths

C1 0.00C2 2.5C3 7.25C4 3.00C5 0.00C6 0.00

Damage Offset

± 46.00

VEHICLE 2

Damage Length _____

Crush Depths

C1 _____

C2 _____

C3 _____

C4 _____

C5 _____

C6 _____

Damage Offset

± _____

IF THIS COMMON IMPACT WAS WITH A MOTOR VEHICLE NOT IN TRANSPORT, FILL IN THE INFORMATION BELOW

Model Year: _____

Make: _____

Model: _____

VIN: _____

The Weight, CDC, Scene Data and Damage Information for this vehicle should be recorded above.

Complete and ATTACH the appropriate vehicle damage sketch and dimensions to the Form.

SUMMARY OF EDCRASH RESULTS

ENGINEERING DYNAMICS CORPORATION

Date [REDACTED] 1990 Time [REDACTED]

NCSI 90-10

WARNING MESSAGES: NO MESSAGES

VEHICLE # 1

IMPACT SPEED MPH		SPEED CHANGE MPH			BASIS OF RESULTS
FWD	LAT	TOTAL	LONG.	LATERAL	
0.0	0.0	0.0	0.0	0.0	SPINOUT TRAJECTORIES AND CONSERVATION OF LINEAR MOMENTUM
0.0	0.0	0.0	0.0	0.0	SPINOUT TRAJECTORIES AND DAMAGE
		9.4	-8.2	4.7	DAMAGE DATA ONLY

SUMMARY OF DAMAGE DATA

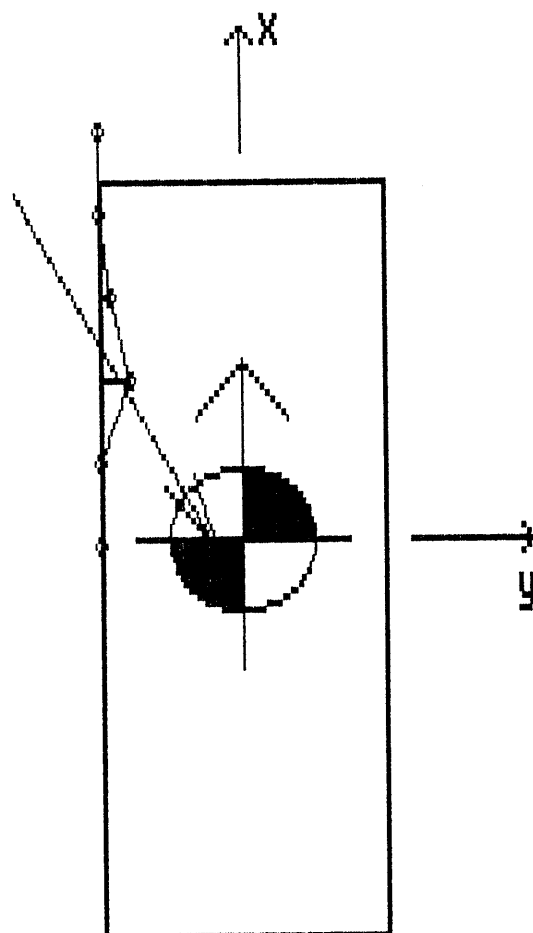
NOTE: '**' indicates default value

	VEHICLE #1	VEHICLE #2	
CLASS (SIZE) CATEGORY	2	11	
WEIGHT	4098.0 LBS.	1000000.0 LBS.	**
CDC	11LYAW2	BARRIER	
DAMAGE WIDTH	96.0 IN.	0.0 IN.	**
CRUSH DEPTH 1	0.0 IN.	0.0 IN.	**
CRUSH DEPTH 2	0.3 IN.	0.0 IN.	**
CRUSH DEPTH 3	7.3 IN.	0.0 IN.	**
CRUSH DEPTH 4	3.0 IN.	0.0 IN.	**
CRUSH DEPTH 5	0.0 IN.	0.0 IN.	**
CRUSH DEPTH 6	0.0 IN.	0.0 IN.	**
DAMAGE MIDPOINT OFFSET	46.0 IN.	0.0 IN.	**
DAMAGE ENERGY	12304.9 FT.-LB.	0.0 FT.-LB.	
MAGNITUDE OF PRINCIPAL FORCE	53739.0 LB.	53739.0 LB.	
DIRECTION OF PRINCIPAL FORCE	-30.1 DEG. **	0.0 DEG. **	
MOMENT ARM OF PRINCIPAL FORCE	-6.3 IN.	0.0 IN.	
DAMAGE CENTROID	41.4 IN.	0.0 IN.	

DIMENSIONAL, INERTIAL AND TIRE/ROAD PROPERTIES

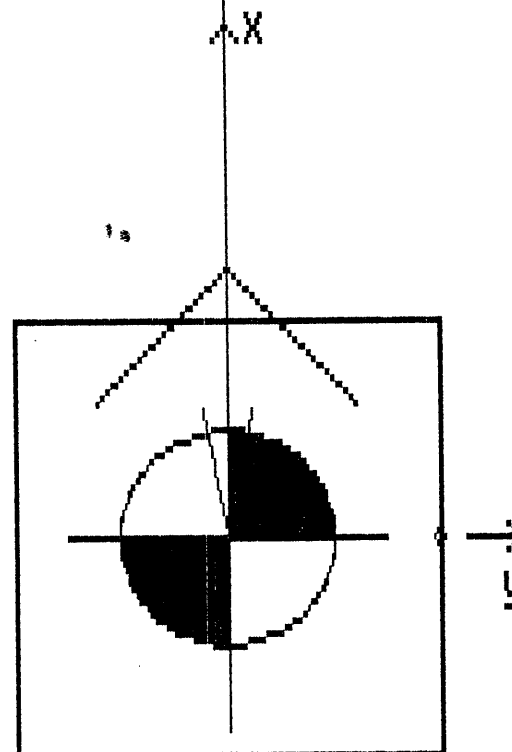
	VEHICLE #1	VEHICLE #2
CG TO FRONT AXLE	46.3 IN.	50.0 IN.
CG TO REAR AXLE	50.1 IN.	50.0 IN.
TRACK WIDTH	54.6 IN.	50.0 IN.
YAW MOMENT OF INERTIA	31297.1 LB-SEC^2-IN	1000000.0 LB-SEC^2-IN
MASS	10.6 LB-SEC^2/IN	1000000.0 LB-SEC^2/IN
BODY LENGTH FROM CG TO FRONT	83.3 IN.	50.0 IN.
BODY LENGTH FROM CG TO REAR	-91.6 IN.	-50.0 IN.
BODY WIDTH	67.2 IN.	100.0 IN.

Vehicle No.1



CDC/PDOF: 11LYAW2 -30.1 deg
Max. Impact Force: 53739 lb

Vehicle No.2



CDC/PDOF: BARRIER 0.0 deg
Max. Impact Force: 53739 lb



EDCRASH Damage Profiles

	Veh #1	Veh #2
Delta-V (mph):		
X	-8.2	-0.0
Y	4.7	0.0
Tot	9.4	0.0
Crush Data (in):		
W	96.0	0.0
D	46.0	0.0
C1	0.0	0.0
C2	0.3	0.0
C3	7.3	0.0
C4	3.0	0.0
C5	0.0	
C6	0.0	

Appendix E:
REPAIR ESTIMATE

Visible Damage Quotation

FED. I.D. #

DATE

2

NAME

ADDRESS

CITY

STATE

ZIP

H. PHONE

W. PHONE

YEAR 90

MAKE Dodge

MODEL Daytona

LICENSE NO.

MILEAGE

VIN NO.

PROD DATE

BODY CODE

PAINT

TRIM

INS. CO.

ADDRESS

DATE OF LOSS

CLAIM NO.

ADJUSTER

PHONE

LIC. NO.

FILE NO.

W. BY

D.D.

Line No.	Re-pair	Re-place	N = NEW U = USED R = REPAIR S = STRAIGHTEN R/C = RECYCLE / RECHROME / RECORE	LABOR HOURS				PARTS		SUBLET / MISC
				BODY	PAINT	FR/ST	MECH			
1		N	Good Pnl	12				310	00	
2		N	Left " / hinge	2				30	00	
3		N	Right " "	2				30	00	
4		N	W Wheel Cover (Left Front)					57	00	
5		N	Left Front Fender	22				245	00	
6		N	" " Mud Shield	3				16	00	
7		N	" M lds.	3				6	75	
8		N	" Emblem	2				8	75	
9		N	Left Door	40				570	00	
10		N	" " M lds.	2				24	50	
11		N	" " Trim Pnl	5				220	00	
12		N	Left Cowl Pnl			30		60	00	
13		N	" " Plenum Pnl					130	00	
14		N	Left Rocker Pnl			11.5		220	00	
15		N	Left Door upper hinge	3				5	00	
16		N	" " Lower hinge	3				12	00	
17		N	Qtr Pnl	150				400	00	
18		N	" " Wheel Housing	20				102	00	
19		N	W Wheel Cover (Left Rear)					57	00	
20		N	Left Qtr M lds Rear	2				7	50	
21		N	Right Front Fender	22				245	00	
22		N	Right Door	40				570	00	
23		N	" M lds.	2				24	50	
24		N	" upper hinge	3				5	00	
25		N	" Lower hinge	3				12	00	
26		N	" Qtr Pnl	160				390	00	

OLD PARTS WILL BE DISCARDED UNLESS OTHERWISE INSTRUCTED

TOTALS

SOMETIMES AFTER THE WORK HAS BEEN STARTED ADDITIONALLY DAMAGED OR WORN PARTS ARE DISCOVERED WHICH WERE NOT EVIDENT ON FIRST INSPECTION. THIS DAMAGE REPORT DOES NOT COVER OR INCLUDE ANY ADDITIONAL PARTS OR LABOR WHICH MAY BE REQUIRED. ALL PARTS PRICES ARE SUBJECT TO INVOICE.

I hereby authorize the above work and acknowledge receipt of copy.

Signed X

Date

ML

FRAME,
24

LABOR

BODY hrs. @

PAINT hrs. @

FRAME hrs. @

MECH hrs. @

PARTS Prices subject to invoice

SUBLET/MISCELLANEOUS

Paint Supplies hrs. @

Body Supplies hrs. @

Towing / Storage

EPA / Waste Disposal Charge

SUB-TOTAL

TAX ON \$2,500.

TAX % on \$

TOTAL

\$

Visible Damage Quotation

FED. I.D. # [REDACTED] 9

DATE [REDACTED] / [REDACTED] / [REDACTED]

NAME [REDACTED]
 ADDRESS [REDACTED]
 CITY [REDACTED] STATE [REDACTED] ZIP [REDACTED]
 H. PHONE [REDACTED] W. PHONE [REDACTED]

YEAR [REDACTED] MODEL [REDACTED]
 LICENSE NO. [REDACTED] MILEAGE [REDACTED]
 VIN NO. [REDACTED]
 PROD DATE [REDACTED] BODY CODE [REDACTED] PAINT [REDACTED] TRIM [REDACTED]

INS. CO. [REDACTED] ADDRESS [REDACTED] DATE OF LOSS [REDACTED] CLAIM NO. [REDACTED]
 ADJUSTER [REDACTED] PHONE [REDACTED] LIC. NO. [REDACTED] FILE NO. [REDACTED] W. BY [REDACTED] D.D. [REDACTED]

Line No.	Re-pair	Re-place	N = NEW U = USED R = REPAIR S = STRAIGHTEN R/C = RECYCLE / RECHROME / RECORE	LABOR HOURS				PARTS		SUBLET / MISC	
				BODY	PAINT	FR/ST	MECH				
1		N	Right Qtr W Wheel Rowing	20				80	00		
2		N	" " Mlds	2				7	50		
3		N	" Rear W Wheel	3				69	00		
4		N	" Tire (P185/70R14 Goodyear	3				71	80		
5		N	" W Wheel Cover	1				57	00		
6		N	W / S Glass 29980 Less 5090	20				209	86		
7		N	" Dealer Kit					15	95		
8		N	Left Vertical Mlds					27	00		
9		N	Air Bag Module	5				360	00		
10		N	" " Clock Spring					90	00		
11		N	Left Upper Frame Rail			25		16	50		
12		N	Inside Rear View Mirror					26	00		
13		N	Radio Bezel	3				60	00		
14		N	Instrument Panel	20				300	00		
15			Frame Set up & Gauge			15					
16	R		Roof Panel	85							
17	R		7 door Pan Left			140					
18	R		Front Structure & Strut Towers			100					
19			Refinish Auto Complete							1200	00
20											
21											
22											
23											
24											
25											
26											

OLD PARTS WILL BE DISCARDED UNLESS OTHERWISE INSTRUCTED

TOTALS

SOMETIMES AFTER THE WORK HAS BEEN STARTED ADDITIONALLY DAMAGED OR WORN PARTS ARE DISCOVERED WHICH WERE NOT EVIDENT ON FIRST INSPECTION. THIS DAMAGE REPORT DOES NOT COVER OR INCLUDE ANY ADDITIONAL PARTS OR LABOR WHICH MAY BE REQUIRED. ALL PARTS PRICES ARE SUBJECT TO INVOICE.

I hereby authorize the above work and acknowledge receipt of copy.

Signed X _____ Date _____

ML

FRAME,
RY

LABOR
 BODY 71.2 hrs. @ 2400
 PAINT _____ hrs. @
 FRAME 420 hrs. @ 3000
 MECH _____ hrs. @

PARTS Prices subject to invoice
 SUBLET/MISCELLANEOUS _____
 Paint Supplies _____ hrs. @
 Body Supplies _____ hrs. @
 Towing / Storage _____
 EPA / Waste Disposal Charge _____
 SUB-TOTAL _____
 TAX ON \$2,500.

TAX 5% on \$9332.41
 TOTAL

1708 80
 1275 00
 5148 61
 1200 00
 466 62
 \$ 9799 03